

6. In order to assist the transition into a regulatory based monitoring program, all additional monitoring wells installed to further characterize ground water quality and/or ground water flow for the Blue Lake South or Blue Lake North sites need to be sampled for the 40 CFR 264 Appendix IX constituents. If constituents are detected in the ground water from the sampling of new wells in addition to those presently being analyzed, they must be added to the monitoring program for the Blue Lake North site or Blue Lake South site, respectively, depending on the location where they were detected.
7. The installation methods and construction requirements for all monitoring wells must be in accordance with the requirements listed in the US EPA *RCRA Ground-Water Monitoring: Draft Technical Guidance*, dated November 1992, and the approved Site Assessment Work Plan (SAWP), dated April 28, 2000. Boring logs, construction diagrams, and survey results (top of casing elevations and ground surface elevations measured to one-hundredth (0.01) foot accuracy) of monitoring well additions relating to the Blue Lake site(s) must be submitted within thirty (30) days of their installation.
8. Based on information contained in the SAR, it appears that surface water samples were analyzed for metallic constituents. However, in order to evaluate the existence of and levels of contamination discharging from the ground water into the Blue Lakes (the three (3) surface water bodies on the Blue Lake South site), constituents in addition to metals require sampling and analyses.

In the future, constituents detected in the ground water at the Blue Lake South site must also be analyzed for from surface water samples taken from the Blue Lakes.

9. Based on information contained in the SAR, the facility is collecting surface water elevation data from four (4) locations along Eagle Creek. One location is approximately three (3) miles northwest of the site, and the other three (3) are at or near the Morris Street Bridge. From these descriptions and the surface water elevation data included in the SAR, it does not appear that the locations allow for adequate interpretation of flow between Eagle Creek and ground water at the Blue Lake South site.

To allow for interpretation of flow between Eagle Creek and ground water at the Blue Lake South site, an additional location for measuring surface water elevation needs to be surveyed along Eagle Creek. Additionally, locations and results of surface water elevation measurements from Eagle Creek need to be depicted on future potentiometric maps developed for Blue Lake North site and the Blue Lake South site.

10. The SAR does not appear to include all applicable monitoring well survey results. Survey results for top of casing (TOC) elevations were included within the SAR, but elevations of the ground surface at each well does not appear to have been submitted. Ground surface elevations are necessary measurements and are used for various purposes, including the generation of geologic cross-sections. Additionally, the SAR indicates that the ground surface elevation measurements have been completed.

The facility needs to submit results from the survey of elevations of the ground surface at each well within sixty (60) days of receipt of this letter.

11. In order to assist the transition into a regulatory based monitoring program, quarterly ground water and surface water monitoring must continue during the site assessment phase until approval of the plan for developing an adequate ground water monitoring system pursuant to 40 CFR 265 Subpart F, described in Order 4.v.i. of the Agreed Order (Cause No. N-238). Based on Order 4.v.ii. of the Agreed Order, it appears that the Subpart F monitoring system will take precedence until the approval of the site assessment and the risk assessment. After which, a ground water detection monitoring program pursuant to 40 CFR 264.97 and 264.98, will require implementation.
12. On February 21, 2001, the rule revisions regarding a requirement for land disposal facilities that perform ground water monitoring to submit digital ground water data (in addition to the hard copy version of the report) to the department became effective. The rule is LSA #99-232 and can be found in the *Indiana Register* at 24 IR 1616.

Therefore, it is recommended for all previous and future ground water monitoring reports and sampling events, that the facility submit an electronic version of ground water related data (analytical results, field measurements, ground water elevations, total depth elevations, etc.) in addition to the hard-copy version of the report. Additionally, it is requested that the facility also include surface water related data (analytical results, field measurements, surface water elevations, etc.) within the electronic submittal. Attached is guidance that pertains to the electronic data submittal (Guidance for Formatting Digital Datasets). Also, attached is an example dataset having a complete and acceptable format for the electronic submittal to the department (Example Dataset Having a Complete Format). Since a database for the Blue Lake site(s) has already been initiated (global positioning system survey results, etc.), it is recommended that the electronic submittal use well names MW-1 through MW-11 instead of MW00001 through MW000011 and staff gauge/surface water location names SW-1 through SW-3 instead of SW00001 through SW00003.

Guidance for Formatting Digital Datasets

The ASCII Text ("Tab Delimited") (.txt) file is what should be submitted to IDEM. If desired, data can be submitted directly to IDEM through the e-mail address oshwmdata@dem.state.in.us, instead of a 3 1/2" floppy diskette.

Please note that the information contained in the files is to serve as an example. The actual information submitted for a facility should be that data required for the ground-water monitoring program the facility in question is required to perform. Also, please include laboratory name.

- 1) Please notice the headers (columns). Under the header "SampleDate", format for a date and not a number or text, if possible. As a reminder, please include the year also.
- 2) Each header is titled as one word, even though there are two words. Example: "WellName" and not "Well Name". In addition, please make sure the well name is consistent for each submittal such as OW-12 or OW12 or whatever you are identifying as each well. Generally, the names of the wells in the most recent operating permit or renewal permit will be the correct names. If unsure, please contact the IDEM site geologist to double check each name.
- 3) Under the header "A SpeciesName", the order of constituents is not critical. However, it is best to reflect the order that is on the laboratory-data sheets and keep all field data grouped together. Metals should indicate the "dissolved" phase or the "total" phase.
- 4) Under the header "SampleType" generally, samples will fall under one of the categories listed. As applicable, enter one of the following categories for each well, each constituent: "Regular", "Duplicate", "Equipment Blank", "Trip Blank", "Field Blank", "Replicate1", "Replicate2", "Replicate3", "Replicate4", "Verification", or "Verification Duplicate". If a sample does not fit under one of the listed categories, please contact the IDEM site geologist for further guidance.
- 5) Field data:

A) Needs to be included in the submittal.

B) Associated with water levels do not have their own header. The name such as "GW WaterLevel" is to be entered under the header "SpeciesName" and the data are to be entered under the header "Concentration". Please note how "GW WaterLevel", "GW WaterDepth", and "GW SiltDepth" are written; this is the preferred notation to be in the submittal.

C) For pH, SC (specific conductance), Temp (temperature), GW WaterLevel (which is the measured elevation of ground water in the well), GW WaterDepth (which is the measured depth to water), and GW SiltDepth (which is the measured total depth of well), needs to be included in the digital submittal for sampling events when the information is collected.

D) Such as pH, SC, DO, Temp, and eh, do not have a method listed under the header "AnalyticalMethods". If one exists, go ahead and enter it if desired.

6) Under the header "Concentration", the entry **MUST** be the reported detection limit in a numeric format. Please do not enter text such as "NA" or "ND"

7) Under the header "Units" verify that the units are in "mg/L" or "ug/L".

8) Please note the header "EstimatedValue". If the value recorded was not estimated by the lab, enter "No". If the value was estimated, enter "Yes", and then under the header "Comments" enter why it was estimated.

9) Under "SampleMedium", enter "ground water", "surface water", "leachate", "soil", etc... Whatever is applicable.

Example Dataset - Having a Complete Format
(excerpt of example dataset emailed to consultants 10/99)

Pelín County Landfill Facility
Permit #23-09
Groundwater Monitoring Data Summary
Laboratory: Laboratory USA, Inc

SampleDate	WellName	SampleType	SpeciesName	Concentration	Units	DetectionLimit	Detected	AnalyticalMethod	EstimatedValue	SampleMedium	Comments
13-Aug-99	OW-11	Regular	Field pH	7	SU		1 Yes		No	Ground Water	
13-Aug-99	OW-11	Regular	Field Specific Conductance	1000	umhos/cm		10 Yes		No	Ground Water	
13-Aug-99	OW-11	Regular	Field Temperature, C	15	Degree C		Yes		No	Ground Water	
13-Aug-99	OW-11	Regular	Field eh (Oxidation-Reduction Potential)	-2	mvolts		Yes		No	Ground Water	
13-Aug-99	OW-11	Regular	Field dissolved oxygen	12	mg/L		Yes		No	Ground Water	
13-Aug-99	OW-11	Regular	GW WaterLevel	635.19	ft/MSL, water elevation		Yes		No	Ground Water	
13-Aug-99	OW-11	Regular	GW WaterDepth	29.5	ft, depth to water		Yes		No	Ground Water	
13-Aug-99	OW-11	Regular	GW SiltDepth	11.79	ft, well depth		Yes		No	Ground Water	
13-Aug-99	OW-11	Regular	Chloride	2.6	mg/L		1 Yes	EPA 325.2	No	Ground Water	
13-Aug-99	OW-11	Regular	Ammonia Nitrogen	1	mg/L		0.12 Yes	EPA 350.3	No	Ground Water	
13-Aug-99	OW-11	Regular	Sodium (Dissolved)	34	mg/L		0.2 Yes	SW846-6010B	No	Ground Water	
13-Aug-99	OW-11	Regular	Zinc (Dissolved)	0.02	mg/L		0.02 No	SW846-6010B	No	Ground Water	
13-Aug-99	OW-11	Regular	Benzene	5	ug/L		5 No	SW846-8260B	No	Ground Water	
13-Aug-99	OW-11	Regular	Carbon tetrachloride	5	ug/L		5 No	SW846-8260B	No	Ground Water	
13-Aug-99	OW-11	Regular	Chlorobenzene	5	ug/L		5 No	SW846-8260B	No	Ground Water	
13-Aug-99	OW-11	Regular	Chloroethane	5	ug/L		5 No	SW846-8260B	No	Ground Water	
13-Aug-99	OW-11	Duplicate	Chloride	3.1	mg/L		1 Yes	EPA 325.2	No	Ground Water	
13-Aug-99	OW-11	Duplicate	Ammonia Nitrogen	0.88	mg/L		0.12 Yes	EPA 350.3	No	Ground Water	
13-Aug-99	OW-11	Duplicate	Sodium (Dissolved)	35	mg/L		0.2 Yes	SW846-6010B	No	Ground Water	
13-Aug-99	OW-11	Duplicate	Zinc (Dissolved)	0.02	mg/L		0.02 No	SW846-6010B	No	Ground Water	
13-Aug-99	OW-11	Duplicate	Benzene	5	ug/L		5 No	SW846-8260B	No	Ground Water	
13-Aug-99	OW-11	Duplicate	Carbon tetrachloride	5	ug/L		5 No	SW846-8260B	No	Ground Water	
13-Aug-99	OW-11	Duplicate	Chlorobenzene	5	ug/L		5 No	SW846-8260B	No	Ground Water	
13-Aug-99	OW-11	Duplicate	Chloroethane	5	ug/L		5 No	SW846-8260B	No	Ground Water	
13-Aug-99	OW-12	Regular	Field pH	7	SU		Yes		No	Ground Water	
13-Aug-99	OW-12	Regular	Field Specific Conductance	1000	umhos/cm		Yes		No	Ground Water	
13-Aug-99	OW-12	Regular	Field Temperature, C	15	Degree C		Yes		No	Ground Water	
13-Aug-99	OW-12	Regular	Field eh (Oxidation-Reduction Potential)	-2	mvolts		Yes		No	Ground Water	
13-Aug-99	OW-12	Regular	Field dissolved oxygen	12	mg/L		Yes		No	Ground Water	
13-Aug-99	OW-12	Regular	GW WaterLevel	639.77	ft/MSL, water elevation		Yes		No	Ground Water	
13-Aug-99	OW-12	Regular	GW WaterDepth	21.5	ft, depth to water		Yes		No	Ground Water	
13-Aug-99	OW-12	Regular	GW SiltDepth	11.79	ft, well depth		Yes		No	Ground Water	
13-Aug-99	OW-12	Regular	Chloride	11	mg/L		1 Yes	EPA 325.2	No	Ground Water	
13-Aug-99	OW-12	Regular	Ammonia Nitrogen	0.2	mg/L		0.12 Yes	EPA 350.3	No	Ground Water	
13-Aug-99	OW-12	Regular	Sodium (Dissolved)	16	mg/L		0.2 Yes	SW846-6010B	No	Ground Water	
13-Aug-99	OW-12	Regular	Zinc (Dissolved)	0.1	mg/L		0.02 Yes	SW846-6010B	No	Ground Water	
13-Aug-99	OW-12	Regular	Benzene	5	ug/L		5 No	SW846-8260B	No	Ground Water	
13-Aug-99	OW-12	Regular	Carbon tetrachloride	5	ug/L		5 No	SW846-8260B	No	Ground Water	
13-Aug-99	OW-12	Regular	Chlorobenzene	5	ug/L		5 No	SW846-8260B	No	Ground Water	
13-Aug-99	OW-12	Regular	Chloroethane	5	ug/L		5 No	SW846-8260B	No	Ground Water	
13-Aug-99	Equipment Blank	Equipment Blank	Sodium (Dissolved)	0.2	mg/L		0.2 No	SW846-6010B	No	Ground Water	
13-Aug-99	Equipment Blank	Equipment Blank	Zinc (Dissolved)	0.02	mg/L		0.02 No	SW846-6010B	No	Ground Water	
13-Aug-99	Trip Blank	Trip Blank	Chloride	1	mg/L		1 No	EPA 325.2	No	Ground Water	
13-Aug-99	Trip Blank	Trip Blank	Ammonia Nitrogen	0.12	mg/L		0.12 No	EPA 350.3	No	Ground Water	
13-Aug-99	Trip Blank	Trip Blank	Sodium (Dissolved)	0.2	mg/L		0.2 No	SW846-6010B	No	Ground Water	
13-Aug-99	Trip Blank	Trip Blank	Zinc (Dissolved)	0.02	mg/L		0.02 No	SW846-6010B	No	Ground Water	
13-Aug-99	Trip Blank	Trip Blank	Benzene	5	ug/L		5 No	SW846-8260B	No	Ground Water	
13-Aug-99	Trip Blank	Trip Blank	Carbon tetrachloride	5	ug/L		5 No	SW846-8260B	No	Ground Water	
13-Aug-99	Trip Blank	Trip Blank	Chlorobenzene	5	ug/L		5 No	SW846-8260B	No	Ground Water	
13-Aug-99	Trip Blank	Trip Blank	Chloroethane	5	ug/L		5 No	SW846-8260B	No	Ground Water	
20-Sep-99	OW-11	Verification	Sodium (Dissolved)	13	mg/L		0.2 Yes	SW846-6010B	No	Ground Water	
20-Sep-99	OW-11	Verification Duplicate	Sodium (Dissolved)	13	mg/L		0.2 Yes	SW846-6010B	No	Ground Water	
20-Sep-99	Equipment Blank	Equipment Blank	Sodium (Dissolved)	0.2	mg/L		0.2 No	SW846-6010B	No	Ground Water	
20-Sep-99	Trip Blank	Trip Blank	Sodium (Dissolved)	0.2	mg/L		0.2 No	SW846-6010B	No	Ground Water	

BLUE LAKE, INC. (IND 046 107 157)

The Blue Lake, Inc., facility is in Indianapolis, Indiana. The facility covers 65 acres in an industrial and residential area. The facility has operated as a solid waste fill site since 1927. Contaminants of concern include D006-characteristic leachable cadmium and D008-characteristic leachable lead.

The groundwater score is based on an observed release of heavy metals. Disposal areas are the source of this contamination. Residential wells are in close proximity to the facility.

The surface water route score reflects the fact that surface water samples have indicated the presence of heavy metals. Disposal areas are the source of contamination. The quality of the Blue Lake was impacted within 1/2 mile of the facility.

The air route score is based on the fact that heavy metals can migrate into the air from the uncovered, contaminated soils. No observed releases, permitted releases, or odor complaints have been recorded. Residents live within 1/4 mile of the facility.

The on-site soils route score is based on documented reports of lead contamination. The site is inaccessible because a fence surrounds it.

Reference:

EPA. 1989. PA/VSI Report for the Blue Lake, Inc., Facility in Indianapolis, Indiana. May 5.

RCRA PRIORITIZATION SYSTEM SCORING SUMMARY

FOR

BLUE LAKE

EPA SITE NUMBER: IND 046107157

INDIANAPOLIS, IN

SCORED BY: R. GEIGER

OF PRC EMI

ON 07/26/91

GROUNDWATER SCORE : 100.00

SURFACE WATER SCORE: 42.55

AIR ROUTE SCORE : 9.49

ONSITE SCORE : 21.43

MIGRATION SCORE : 55.59

EPA ID NO. : IND 046107157
BLUE LAKE

WS-1 GROUNDWATER ROUTE

IS THERE AN OBSERVED RELEASE? Y

ROUTE CHARACTERISTICS

DEPTH TO AQUIFER (FT.) : NA

NET PRECIPITATION (IN.) : NA

PHYSICAL STATE: NA

CONTAINMENT:

WASTE CHARACTERISTICS

CHEMICAL NAME OR WASTE CODE NUMBER: HEAVY METALS

TOXICITY/PERSISTENCE VALUE: 18

QUANTITY KNOWN? NO

CUBIC YARDS OR TONS: 0
DRUMS : 0

LARGE STORAGE OR DISPOSAL AREAS ARE PRESENT

TARGETS

GROUNDWATER USE: DRINKING WATER

DISTANCE TO WELL (MILES): 0.4

WS-2 SURFACE WATER ROUTE

RELEASES

IS THERE AN OBSERVED RELEASE? Y
IS THERE A PERMITTED OUTFALL?
HAVE THERE BEEN PERMIT VIOLATIONS?

ROUTE CHARACTERISTICS

FACILITY LOCATION: NA
24-HOUR RAINFALL: NA
DISTANCE TO SURFACE WATER (MILES): NA
PHYSICAL STATE: NA

CONTAINMENT: NA

WASTE CHARACTERISTICS

CHEMICAL NAME OR WASTE CODE NUMBER: HEAVY METALS

TOXICITY/PERSISTENCE VALUE: 18

QUANTITY KNOWN? NO

CUBIC YARDS OR TONS: 0
DRUMS : 0

LARGE STORAGE OR DISPOSAL AREAS ARE PRESENT

TARGETS

SURFACE WATER USE: QUALITY IMPACTED
DISTANCE TO INTAKE OR CONTACT POINT (MILES): 0.4
DISTANCE TO SENSITIVE ENVIRONMENT (MILES): 3.0

WS-3 AIR ROUTE

RELEASES

IS THERE AN OBSERVED, UNPERMITTED, ON-GOING RELEASE? N

DOES THE FACILITY HAVE AN AIR OPERATING PERMIT(S)? N

HAVE THERE BEEN ANY PERMIT VIOLATIONS OR ODOR COMPLAINTS BY RESIDENTS? N

CAN CONTAMINANTS MIGRATE INTO AIR? Y

CONTAINMENT: POOR

WASTE CHARACTERISTICS

CHEMICAL NAME OR WASTE CODE NUMBER: HEAVY METALS

TOXICITY/PERSISTENCE VALUE: 3

QUANTITY KNOWN? NO

CUBIC YARDS OR TONS: 0
DRUMS : 0

AMOUNT IS LIKELY TO BE SMALL

TARGETS

POPULATION: RESIDENCES ARE LOCATED WITHIN FOUR MILES

DISTANCE TO SENSITIVE ENVIRONMENT (MILES): 3.0

EPA ID NO. : IND 046107157
BLUE LAKE

WS-4 ON SITE CONTAMINATION

ACCESS TO SITE: INACCESSIBLE

IS THERE AN OBSERVED SURFACE SOIL CONTAMINATION? Y

CONTAINMENT: POOR

WASTE CHARACTERISTICS

CHEMICAL NAME OR WASTE CODE NUMBER: LEAD

TOXICITY/PERSISTENCE VALUE: 3

TARGETS

DISTANCE TO RESIDENTIAL AREAS (MILES): 0.20

IS THERE AN ON-SITE SENSITIVE ENVIRONMENT: N

FILE

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE:

05 MAY 1989

SUBJECT:

Visual Site Inspection (VSI) Blue Lake
Indianapolis, Indiana IND 046 107 157

FROM:

Keith Warwick
Keith Warwick, Environmental Engineer
Indiana Section, RPB

TO:

Hak K. Cho, Chief
Indiana Section, RPB

Attached is the VSI report for the March 21st inspection of Blue Lake. I was accompanied by Tom Fansler of Kenneth Smock Associates who was authorized by Blue Lake owner, Jack Hurt, to show us the property, and Joe Ketterman, R.P.S. and Art Quintana of the Marion County Health Department. Jack Hurt is not seeking a Part B permit for this area which is approximately 65 acres in size.

I. Attachments

- A. Area Map
- B. PR Report
- C. Photographs
- D. Sample Results

Note: A useful reference (not attached) is:
Document No. 5660-003-004

Technical Memorandum
Phase I Environmental
Sampling Program
Reilly Tar & Chemical Corporation
Indianapolis Plant Site

Prepared for: Reilly Tar & Chemical Corporation
Indianapolis, IN
October 1988

by: ERT
An ENSR Company.

II. Documented Releases

Figure 3-1 Phase I Sample Locations shows sample locations.
Samples on this map include: MW-3; MW-4, SW-4, SW-5, RW-1.

- a. MW-3 east end of Howard Street, installed 1974.
Monitoring well MW-3 indicate the presence of:

Barium	314.0 ppb
Zinc	83.0 ppb
Ammonia	48.7 ppm
2-Picoline	1200.0 ppb
3&4-Picoline	1500.0 ppb
2,6-Lutidine	100.0 ppb
2-Ethyl Pyridine	110.0 ppb
2,4&2,5-Lutidine	460.0 ppb
2,3-Lutidine	260.0 ppb
3-Ethyl Pyridine	390.0 ppb
3,5-Lutidine	690.0 ppb
3,4-Lutidine	110.0 ppb
2-Methyl-5-Ethyl Pyridine	350.0 ppb
2-Methyl-3-Ethyl Pyridine	140.0 ppb
3-Ethyl-4-Methyl Pyridine	220.0 ppb
Benzene (MW-3A)	390.0 ppb

Monitoring Well MW 3 is located at the east end of
Howard Street. This monitoring well was constructed in
1974. It is a 1.5 inch diameter steel well, 33 feet

deep, screened from 30.5 feet to 33 feet in sand and gravel.

- b. Monitoring well MW-4 did not indicate the presence of any significant hazardous constituents.

Monitoring well MW-4 was constructed in 1974 located next to "Grand Entrance Lyons" on Minnesota Street. It is a 1.5 inch diameter steel well, 39.3 feet deep, screened from 36.8 feet to 39.3 feet in sand and gravel.

- c. SW-4

Surface water sample SW-4 indicates the presence of: Mercury 0.3 ppb, Bis (2-Ethylhexyl)phthalate 2.8 ppb.

Surface water sampling point SW-4 was taken at the midpoint of Blue Lake. The rationale for selecting this sampling point was that this was potentially a good test of the shallow ground water system quality.

- d. SW-5

Surface water sampling point SW-5 was located on the West Shore of Blue Lake. The rationale for selecting this sampling point was that this was potentially a good test of the ground water system quality.

Mercury	0.6 ppb
Ammonia	3.5 ppm
4-Nitrophenol	2.6 ppb
Bis(2-Ethylhexyl)phthalate	7.3 ppb
2,4 & 2,5-Lutidine	4.0 ppb
3,5-Lutidine (SW-5A)	18.0 ppb
2-Methyl-5-Ethyl Pyridine	2.0 ppb
2-Methyl-3-Ethyl Pyridine	2.8 ppb
3-Ethyl-4-Methyl Pyridine (SW-5A)	8.1 ppb

- e. RW-1, 1530 Centennial St. (Altmeyer), installed 1940.

Residential well, RW-1 indicates the presence of:

Arsenic	20.6 ppb
Zinc	205.0 ppb
Benzene	520.0 ppb

Residential well RW-1 is located at 1530 Centennial St. (Altmeyer) is inactive and was constructed about 1940. It is a 1.5 inch steel well, 25 feet deep and screened at 22 feet to 25 feet in sand and gravel.

II. Facility Description

This area is located in an industrial/residential area, and was previously a gravel pit 15-30 feet deep. There is about 65 acres of land that has been filled with primarily foundry sand. Parts of the landfill area have buildings and businesses that have been constructed on it. Reilly Tar is a nearby facility and has contributed to anhydrous ammonia and picoline contamination at Blue Lake. Some or all of the following came from Chrysler Corporation's nearby facility: gray iron engine blocks; foundry sand; material from cupola; purification sludge; soot; stack scrubber sludge; D006, D008 Wastewater Treatment Sludge; and some oil left on blocks before remelting. Foundry sand was placed in this area from 1917. Limestone granules from Allison purification plant have been placed at the landfill.

There are at least three ponds on the property, at least one acre in size each. One of the ponds by Jack Hurt's house did have a fish kill due to picoline contamination.

Two other contaminants of concern from Chrysler Corporation's material are D006-Characteristic leachable cadmium and D008-Characteristic leachable lead.

There is "popcorn slag" (light gray material) present. Calcium Carbonate sludge from Detroit Diesel Allison Plant #5 went in last year and could be placed here in the future. The State Board of Health gives Blue Lake a permit for this. Material at Blue Lake includes dark soil, light gray soil, light brown soil, rusty colored material and pieces of metal, construction debris, what appeared to be rubber gloves and three drums which contained unknown material, coke, and cupola slag.

IV. Atmospheric Conditions

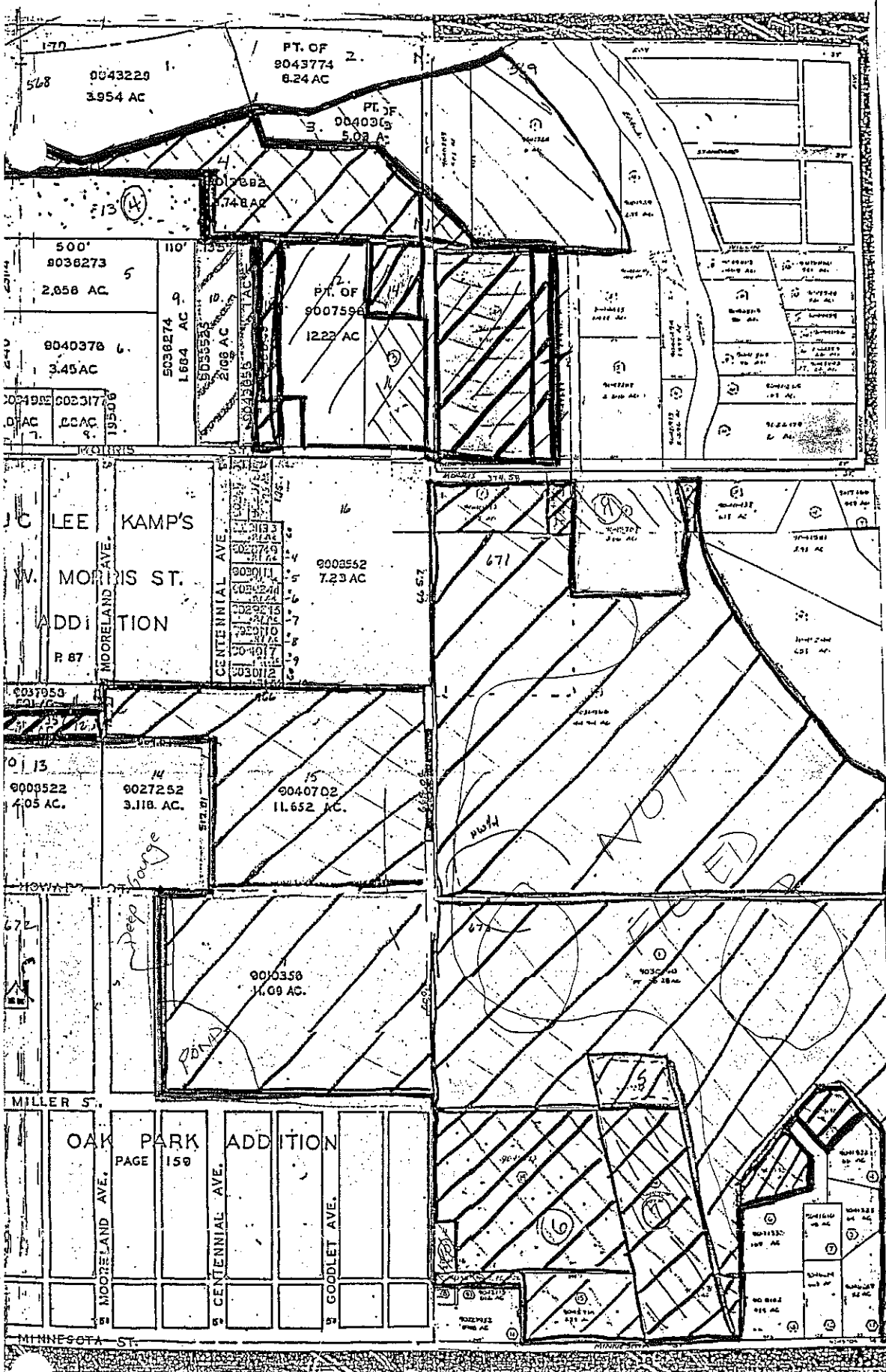
On the day of inspection, the weather was sunny, 65 degrees and there was no snow on the ground.

V. Efforts to Minimize Waste and Promote Recycling.

This facility has made no effort to date to minimize waste or promote recycling.

VI. Conclusion

Because of documented releases (see Attachment D) there is no need for EPA to perform sampling at Blue Lake, but we should require the facility to perform an investigation to fully characterize the wastes.



This 70%
reduced
drawing
has apx
scale
 $1.42" = 665.7'$
or
 $1" = 469'$
 $1 sq in = 5.05 acre$
Area:
Not
Morris
 $2.1 \times 1.5 = 3.15$
 $\times 5.05 = 15.9 A$

So of 6" 13.9"
Morris
= 118.2 A

Area
Not
Filed
 3.6×3.8
= 69.1 A

TOTAL Apx
65 acres

"Blue Lake" as used in this document and for the purposes of this Cause of Action means a part of the Southwest Quarter of Section 9 and a part of the Northwest Quarter of Section 16, all in Township 15 North, Range 3 East, Marion County, Indiana, more specifically depicted here as those properties outlined in red.

USEPA VSI REPORT-ATT I

PRELIMINARY REVIEW REPORT (PR)
RCRA FACILITY ASSESSMENT (RFA)

w/VS1 Report

1. Facility Name Blue Lake Inc.
EPA ID # IND 046 107 157
Preparer Keith Warwick Keith Warwick
Date _____ DATE STAMP

13 FEB 1989

2. General Description of Facility and Processes:

A. Description: They have anhydrous ammonia and picoline contamination from Reilly Tar, Gray iron engine blocks (Chrysler), foundry sand. They purify iron in cupola w/ dolomite and another substance. They have pale greenish tint-white slag. They used to get purification sludge from Chrysler and also soot, stack scrubber sludge & some oil left on blocks before remelting. Material is solidified to consistency of heavy mud. They have Pb, Cd constituents. Material was dumped on hot sand & hardened. Foundry sand has been dumped there since 1917. They have limestone granules from Allison purification plant. DO06, DO08 Wastewater treatment sludge from Chrysler Corporation was being deposited prior to February 20, 1984, at Blue Lake.

B. Information on Solid Waste Management Units (attach additional sheets as needed):

	<u>Unit</u>	<u>Release (yes/no/unknown/suspected)</u>
i.	Fill Area(s)	Suspected
ii.	Riprap	Unknown
iii.	Construction Debris	Unknown
iv.	Foundry Sand - Eagle Creek #170	Suspected
v.	Foundry Sand - W. of Tibbs & RR Prop	Suspected
vi.		
vii.		
viii.		
ix.		
x.		

3. Specific Unit Information (prepare one for each unit):

A. Unit Type: Fill Area(s) Regulatory Status: _____
Age: Since 1927 _____
Capacity: _____
Period of Operation: _____
Waste Type: _____
Volume: _____
Hazardous Constituents (attach separate sheet): _____

B. Unit Description: _____

① There is fill 20 feet to 30 feet deep from ground level.

Chrysler Corporation / Indianapolis Foundry disposed of their hazardous waste sludge D006, D008 from 1967 to Feb 20, 1984. (500 tons per day)

The Facility was allowed to take foundry sands and demolition materials, but have taken other types of materials.

D006 - Characteristic leachable cadmium
D008 - Characteristic leachable lead

Additional Information Needed: _____

3. Specific Unit Information (prepare one for each unit):

A. Unit Type: Riprap / Construction Debris Regulatory Status: _____
Age: _____
Capacity: _____
Period of Operation: _____
Waste Type: _____
Volume: _____
Hazardous Constituents (attach separate sheet): _____

B. Unit Description: _____

① There is riprap around the lake

② There is construction debris present

Additional Information Needed: _____

3. Specific Unit Information (prepare one for each unit):

A. Unit Type: Food dry Sand Regulatory Status: _____
Age: _____
Capacity: _____
Period of Operation: _____
Waste Type: _____
Volume: _____
Hazardous Constituents (attach separate sheet): _____

B. Unit Description: _____

① Eagle Creek & I-70

② West of Tibbs & Railroad property - Not owned by Hrt.

Additional Information Needed: _____

C. Monitoring Description (groundwater, surface water, etc.): _____

There is hard pan below the site.

Additional Information Needed: _____

D. Environmental Setting: The solid waste fill site is located
on the north and south side of the 2900 and
3000 blocks of West Morris Street.

Additional Information Needed: _____

E. Evidence of Suspected Past or Current Releases: _____

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There is no handwriting or other markings on the paper.

Additional Information Needed: _____

[illegible]

4. Visual Site Inspection (VSI)

A. Specific Objectives:

Jack Hurt Operated the landfill
305-289-1333
317-247-7158
317-241-2647
241/214/211/244 4273

A civil penalty of \$860,300.00 was assessed.

Submittal of a closure/post closure plan from the Blue Lake Facility has been requested.

OFFICIAL PHOTOGRAPH
U.S. ENVIRONMENTAL PROTECTION AGENCY

PROJECT/CASE NO: Blue Lake
SUBJECT: Between Milwaukee &
LOCATION: Morris - Pond
Indianapolis
CITY: _____ COUNTY: _____ STATE: _____
DATE: _____ TIME: _____
WEATHER: (SUN) (HAZE) (CLOUDY) (RAIN) (SNOW)
PHOTOGRAPHER (S&I): Keith Worlock
WITNESS: _____
CAMERA: _____
FILM TYPE: _____ ASA: _____ T: 1/ _____ f: _____
NEGATIVE LOCATION: _____ FILE #: _____
PROCESSED BY: _____
PHOTO #: 1 of 13

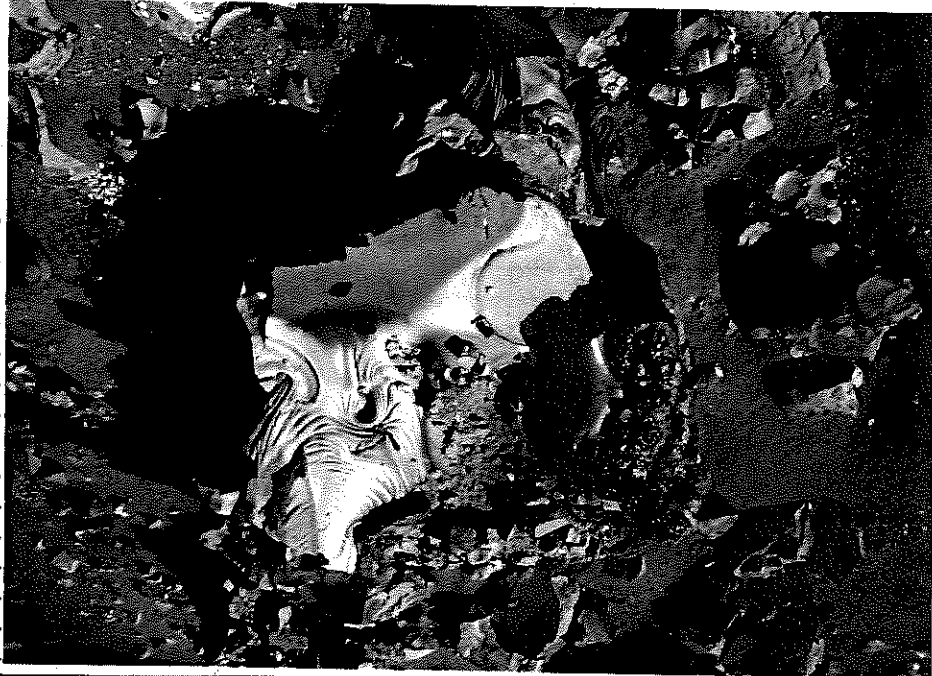
GPO 535-388



OFFICIAL PHOTOGRAPH
U.S. ENVIRONMENTAL PROTECTION AGENCY

PROJECT/CASE NO: Blue Lake
SUBJECT: From Cupola (to be
LOCATION: verified)
Indianapolis
CITY: _____ COUNTY: _____ STATE: _____
DATE: _____ TIME: _____
WEATHER: (SUN) (HAZE) (CLOUDY) (RAIN) (SNOW)
PHOTOGRAPHER (S&I): Keith Worlock
WITNESS: _____
CAMERA: _____
FILM TYPE: _____ ASA: _____ T: 1/ _____ f: _____
NEGATIVE LOCATION: _____ FILE #: _____
PROCESSED BY: _____
PHOTO #: 2 of 13

GPO 535-388



OFFICIAL PHOTOGRAPH
U.S. ENVIRONMENTAL PROTECTION AGENCY

PROJECT/CASE NO: Blue Lake
SUBJECT: Area North of Morris
LOCATION: Indianapolis
CITY: _____ COUNTY: _____ STATE: _____
DATE: _____ TIME: _____
WEATHER: (SUN) (HAZE) (CLOUDY) (RAIN) (SNOW)
PHOTOGRAPHER (S&I): Keith Worlock
WITNESS: _____
CAMERA: _____
FILM TYPE: _____ ASA: _____ T: 1/ _____ f: _____
NEGATIVE LOCATION: _____ FILE #: _____
PROCESSED BY: _____
PHOTO #: 2 of 13



OFFICIAL PHOTOGRAPH
U.S. ENVIRONMENTAL PROTECTION AGENCY

PROJECT/CASE NO: Blue Lake
SUBJECT: Between Milwaukee &
LOCATION: Morris - Pond
Indianapolis
CITY: _____ COUNTY: _____ STATE: _____
DATE: _____ TIME: _____
WEATHER: (SUN) (HAZE) (CLOUDY) (RAIN) (SNOW)
PHOTOGRAPHER (Sig.) Keith Worlock
WITNESS: _____
CAMERA: _____
FILM TYPE: _____ ASA: _____ T:1/ _____ f: _____
NEGATIVE LOCATION: _____ FILE #: _____
PROCESSED BY: _____
PHOTO #: 1 of 13

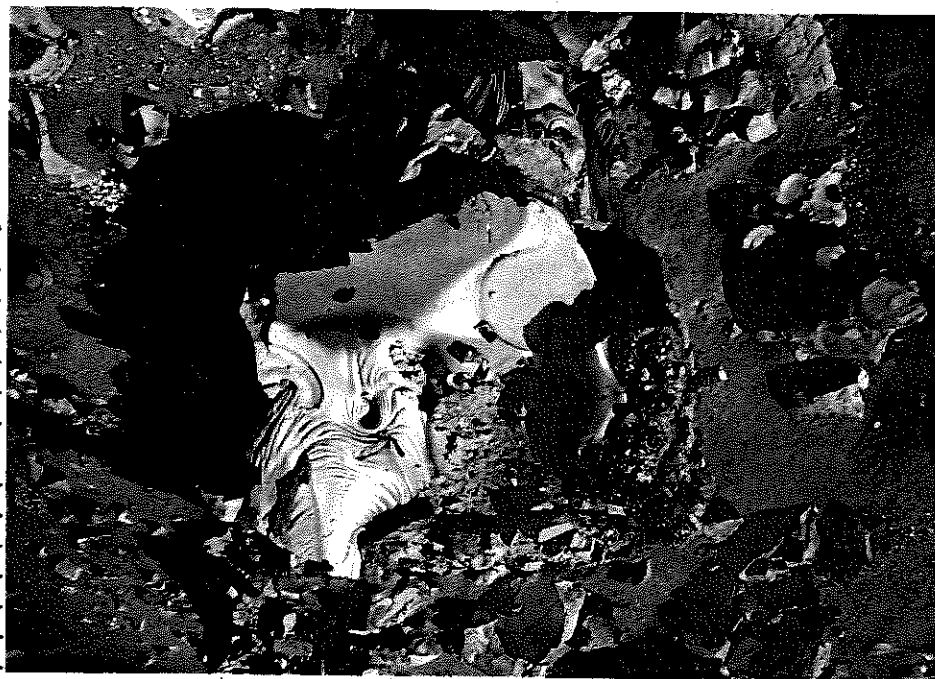
EPO 828-389



OFFICIAL PHOTOGRAPH
U.S. ENVIRONMENTAL PROTECTION AGENCY

PROJECT/CASE NO: Blue Lake
SUBJECT: From Cupola (to be
LOCATION: verified)
Indianapolis
CITY: _____ COUNTY: _____ STATE: _____
DATE: _____ TIME: _____
WEATHER: (SUN) (HAZE) (CLOUDY) (RAIN) (SNOW)
PHOTOGRAPHER (Sig.) Keith Worlock
WITNESS: _____
CAMERA: _____
FILM TYPE: _____ ASA: _____ T:1/ _____ f: _____
NEGATIVE LOCATION: _____ FILE #: _____
PROCESSED BY: _____
PHOTO #: 2 of 13

EPO 828-389



OFFICIAL PHOTOGRAPH
U.S. ENVIRONMENTAL PROTECTION AGENCY

PROJECT/CASE NO: Blue Lake
SUBJECT: Area North of Morris
LOCATION: Indianapolis
CITY: _____ COUNTY: _____ STATE: _____
DATE: _____ TIME: _____
WEATHER: (SUN) (HAZE) (CLOUDY) (RAIN) (SNOW)
PHOTOGRAPHER (Sig.) Keith Worlock
WITNESS: _____
CAMERA: _____
FILM TYPE: _____ ASA: _____ T:1/ _____ f: _____
NEGATIVE LOCATION: _____ FILE #: _____
PROCESSED BY: _____
2 of 13



OFFICIAL PHOTOGRAPH

U.S. ENVIRONMENTAL PROTECTION AGENCY

PROJECT/CASE NO: Blue Lake
 SUBJECT: Between Milwaukee &
 LOCATION: Morris
Indianapolis
 CITY: _____ COUNTY: _____ STATE: _____
 DATE: _____ TIME: _____
 WEATHER: (SUM) (HAZE) (CLOUDY) (RAIN) (SNOW)
 PHOTOGRAPHER (Sig.): [Signature]
 WITNESS: _____
 CAMERA: _____
 FILM TYPE: _____ ASA: _____ T:1/ _____ f: _____
 NEGATIVE LOCATION: _____ FILE #: _____
 PROCESSED BY: _____
 PHOTO #: 4 of 13

GPO 198-199



OFFICIAL PHOTOGRAPH

U.S. ENVIRONMENTAL PROTECTION AGENCY

PROJECT/CASE NO: Blue Lake
 SUBJECT: Between Milwaukee &
 LOCATION: Morris - Pond
Indianapolis
 CITY: _____ COUNTY: _____ STATE: _____
 DATE: _____ TIME: _____
 WEATHER: (SUM) (HAZE) (CLOUDY) (RAIN) (SNOW)
 PHOTOGRAPHER (Sig.): [Signature]
 WITNESS: _____
 CAMERA: _____
 FILM TYPE: _____ ASA: _____ T:1/ _____ f: _____
 NEGATIVE LOCATION: _____ FILE #: _____
 PROCESSED BY: _____
 PHOTO #: 5 of 13

GPO 198-199



OFFICIAL PHOTOGRAPH

U.S. ENVIRONMENTAL PROTECTION AGENCY

PROJECT/CASE NO: Blue Lake
 SUBJECT: Between Milwaukee &
 LOCATION: Morris - Pond
Indianapolis
 CITY: _____ COUNTY: _____ STATE: _____
 DATE: _____ TIME: _____
 WEATHER: (SUM) (HAZE) (CLOUDY) (RAIN) (SNOW)
 PHOTOGRAPHER (Sig.): [Signature]
 WITNESS: _____
 CAMERA: _____
 FILM TYPE: _____ ASA: _____ T:1/ _____ f: _____
 NEGATIVE LOCATION: _____ FILE #: _____
 PROCESSED BY: _____



OFFICIAL PHOTOGRAPH
U.S. ENVIRONMENTAL PROTECTION AGENCY

PROJECT/CASE NO: Blue Lake
SUBJECT: Between Milwaukee &
LOCATION: Morris
Indianapolis
CITY: _____ COUNTY: _____ STATE: _____
DATE: _____ TIME: _____
WEATHER: (SUN) (HAZE) (CLOUDY) (RAIN) (SNOW)
PHOTOGRAPHER (S): John W. Wink
WITNESS: _____
CAMERA: _____
FILM TYPE: _____ ASA: _____ T.1/ _____ f. _____
NEGATIVE LOCATION: _____ FILE #: _____
PROCESSED BY: _____
PHOTO #: 4 of 13

GPO 131-183



OFFICIAL PHOTOGRAPH
U.S. ENVIRONMENTAL PROTECTION AGENCY

PROJECT/CASE NO: Blue Lake
SUBJECT: Between Milwaukee &
LOCATION: Morris - Pond
Indianapolis
CITY: _____ COUNTY: _____ STATE: _____
DATE: _____ TIME: _____
WEATHER: (SUN) (HAZE) (CLOUDY) (RAIN) (SNOW)
PHOTOGRAPHER (S): John W. Wink
WITNESS: _____
CAMERA: _____
FILM TYPE: _____ ASA: _____ T.1/ _____ f. _____
NEGATIVE LOCATION: _____ FILE #: _____
PROCESSED BY: _____
PHOTO #: 5 of 13

GPO 131-183



OFFICIAL PHOTOGRAPH
U.S. ENVIRONMENTAL PROTECTION AGENCY

PROJECT/CASE NO: Blue Lake
SUBJECT: Between Milwaukee &
LOCATION: Morris - Pond
Indianapolis
CITY: _____ COUNTY: _____ STATE: _____
DATE: _____ TIME: _____
WEATHER: (SUN) (HAZE) (CLOUDY) (RAIN) (SNOW)
PHOTOGRAPHER (S): John W. Wink
WITNESS: _____
CAMERA: _____
FILM TYPE: _____ ASA: _____ T.1/ _____ f. _____
NEGATIVE LOCATION: _____ FILE #: _____
PROCESSED BY: _____



OFFICIAL PHOTOGRAPH
U.S. ENVIRONMENTAL PROTECTION AGENCY

PROJECT/CASE NO: Blue Lake
SUBJECT: Between Milwaukee &
LOCATION: Morris
Indianapolis
CITY: _____ COUNTY: _____ STATE: _____
DATE: _____ TIME: _____
WEATHER: (SUM) (HAZE) (CLOUDY) (RAIN) (SNOW)
PHOTOGRAPHER (Sig.) [Signature]
WITNESS: _____
CAMERA: _____
FILM TYPE: _____ ASA: _____ T:1/ _____ F: _____
NEGATIVE LOCATION: _____ FILE #: _____
PROCESSED BY: _____
PHOTO #: 7 of 13

GPO 535-555



OFFICIAL PHOTOGRAPH
U.S. ENVIRONMENTAL PROTECTION AGENCY

PROJECT/CASE NO: Blue Lake
SUBJECT: Between Milwaukee &
LOCATION: Morris
Indianapolis
CITY: _____ COUNTY: _____ STATE: _____
DATE: _____ TIME: _____
WEATHER: (SUM) (HAZE) (CLOUDY) (RAIN) (SNOW)
PHOTOGRAPHER (Sig.) [Signature]
WITNESS: _____
CAMERA: _____
FILM TYPE: _____ ASA: _____ T:1/ _____ F: _____
NEGATIVE LOCATION: _____ FILE #: _____
PROCESSED BY: _____
PHOTO #: 8 of 13

GPO 535-555



OFFICIAL PHOTOGRAPH
U.S. ENVIRONMENTAL PROTECTION AGENCY

PROJECT/CASE NO: Blue Lake
SUBJECT: Between Milwaukee &
LOCATION: Morris
Indianapolis
CITY: _____ COUNTY: _____ STATE: _____
DATE: _____ TIME: _____
WEATHER: (SUM) (HAZE) (CLOUDY) (RAIN) (SNOW)
PHOTOGRAPHER (Sig.) [Signature]
WITNESS: _____
CAMERA: _____
FILM TYPE: _____ ASA: _____ T:1/ _____ F: _____
NEGATIVE LOCATION: _____ FILE #: _____
PROCESSED BY: _____
PHOTO #: 9 of 13



OFFICIAL PHOTOGRAPH
U.S. ENVIRONMENTAL PROTECTION AGENCY

PROJECT/CASE NO: Blue Lake
SUBJECT: Between Milwaukee &
LOCATION: Morris
Indianapolis
CITY: _____ COUNTY: _____ STATE: _____
DATE: _____ TIME: _____
WEATHER: (SUN) (HAZE) (CLOUDY) (RAIN) (SNOW)
PHOTOGRAPHER (Sig): [Signature]
WITNESS: _____
CAMERA: _____
FILM TYPE: _____ ASA: _____ T:1/ _____ f: _____
NEGATIVE LOCATION: _____ FILE #: _____
PROCESSED BY: _____
PHOTO #: 7 of 13

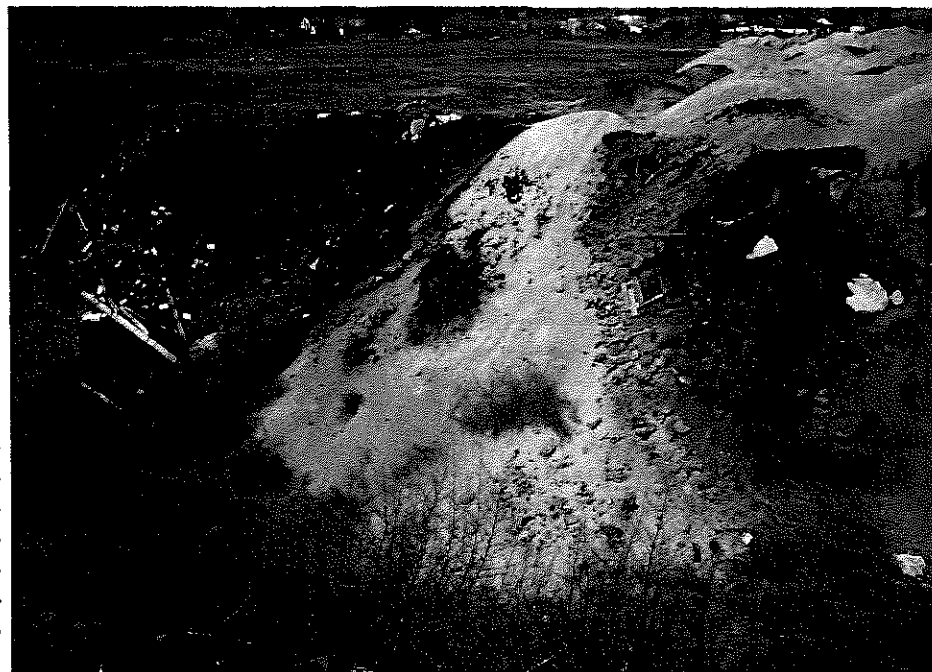
EPA 638-288



OFFICIAL PHOTOGRAPH
U.S. ENVIRONMENTAL PROTECTION AGENCY

PROJECT/CASE NO: Blue Lake
SUBJECT: Between Milwaukee &
LOCATION: Morris
Indianapolis
CITY: _____ COUNTY: _____ STATE: _____
DATE: _____ TIME: _____
WEATHER: (SUN) (HAZE) (CLOUDY) (RAIN) (SNOW)
PHOTOGRAPHER (Sig): [Signature]
WITNESS: _____
CAMERA: _____
FILM TYPE: _____ ASA: _____ T:1/ _____ f: _____
NEGATIVE LOCATION: _____ FILE #: _____
PROCESSED BY: _____
PHOTO #: 8 of 13

EPA 638-288



OFFICIAL PHOTOGRAPH
U.S. ENVIRONMENTAL PROTECTION AGENCY

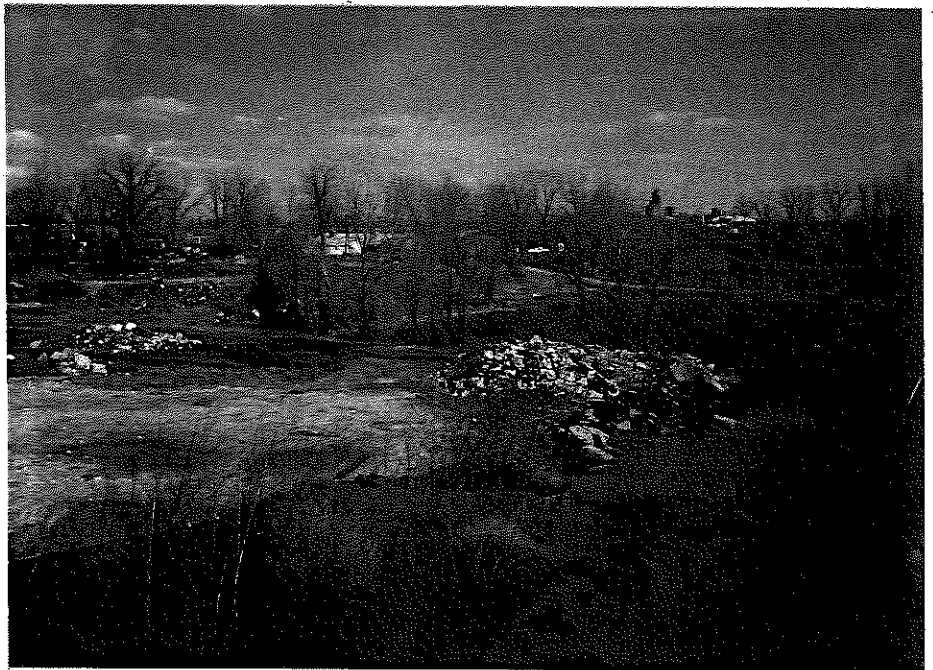
PROJECT/CASE NO: Blue Lake
SUBJECT: Between Milwaukee &
LOCATION: Morris
Indianapolis
CITY: _____ COUNTY: _____ STATE: _____
DATE: _____ TIME: _____
WEATHER: (SUN) (HAZE) (CLOUDY) (RAIN) (SNOW)
PHOTOGRAPHER (Sig): [Signature]
WITNESS: _____
CAMERA: _____
FILM TYPE: _____ ASA: _____ T:1/ _____ f: _____
NEGATIVE LOCATION: _____ FILE #: _____
PROCESSED BY: _____
PHOTO #: 9 of 13



OFFICIAL PHOTOGRAPH
U.S. ENVIRONMENTAL PROTECTION AGENCY

PROJECT/CASE NO: Blue Lake
SUBJECT Between Milwaukee & Morris
LOCATION: Indianapolis
CITY: _____ COUNTY: _____ STATE: _____
DATE: _____ TIME: _____
WEATHER: (SUN) (HAZE) (CLOUDY) (RAIN) (SNOW)
PHOTOGRAPHER (S&C) Keith Brown
WITNESS: _____
CAMERA: _____
FILM TYPE: _____ ASA: _____ T.1/ _____ f. _____
NEGATIVE LOCATION: _____ FILE #: _____
PROCESSED BY: _____
PHOTO #: 10 of 13

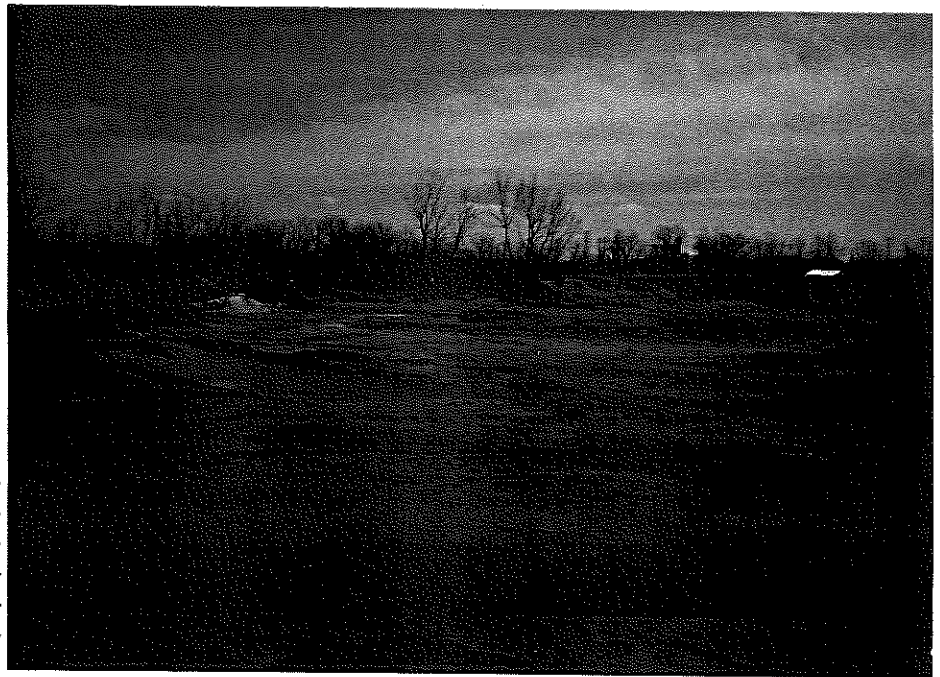
GPO 535-585



OFFICIAL PHOTOGRAPH
U.S. ENVIRONMENTAL PROTECTION AGENCY

PROJECT/CASE NO: Blue Lake
SUBJECT Between Milwaukee &
LOCATION: Morris
CITY: Indianapolis COUNTY: _____ STATE: _____
DATE: _____ TIME: _____
WEATHER: (SUN) (HAZE) (CLOUDY) (RAIN) (SNOW)
PHOTOGRAPHER (S&C) Keith Brown
WITNESS: _____
CAMERA: _____
FILM TYPE: _____ ASA: _____ T.1/ _____ f. _____
NEGATIVE LOCATION: _____ FILE #: _____
PROCESSED BY: _____
PHOTO #: 11 of 13

GPO 535-585



OFFICIAL PHOTOGRAPH
U.S. ENVIRONMENTAL PROTECTION AGENCY

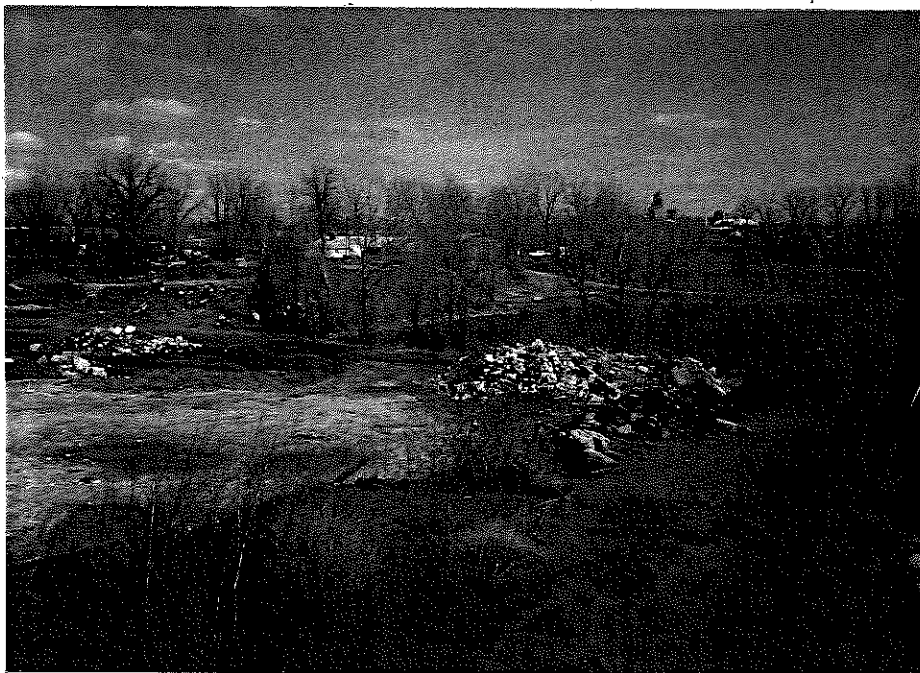
PROJECT/CASE NO: Blue Lake
SUBJECT Between Milwaukee &
LOCATION: Morris
CITY: _____ COUNTY: _____ STATE: _____
DATE: _____ TIME: _____
WEATHER: (SUN) (HAZE) (CLOUDY) (RAIN) (SNOW)
PHOTOGRAPHER (S&C) Keith Brown
WITNESS: _____
CAMERA: _____
FILM TYPE: _____ ASA: _____ T.1/ _____ f. _____
NEGATIVE LOCATION: _____ FILE #: _____
PROCESSED BY: _____



OFFICIAL PHOTOGRAPH
U.S. ENVIRONMENTAL PROTECTION AGENCY

PROJECT/CASE NO: Blue Lake
SUBJECT Between Milwaukee & Morris
LOCATION: Indianapolis
CITY: _____ COUNTY: _____ STATE: _____
DATE: _____ TIME: _____
WEATHER: (SUN) (HAZE) (CLOUDY) (RAIN) (SNOW)
PHOTOGRAPHER (Sg.) John W. Brown
WITNESS: _____
CAMERA: _____
FILM TYPE: _____ ASA: _____ T.1/ _____ f. _____
NEGATIVE LOCATION: _____ FILE #: _____
PROCESSED BY: _____
PHOTO #: 10 of 13

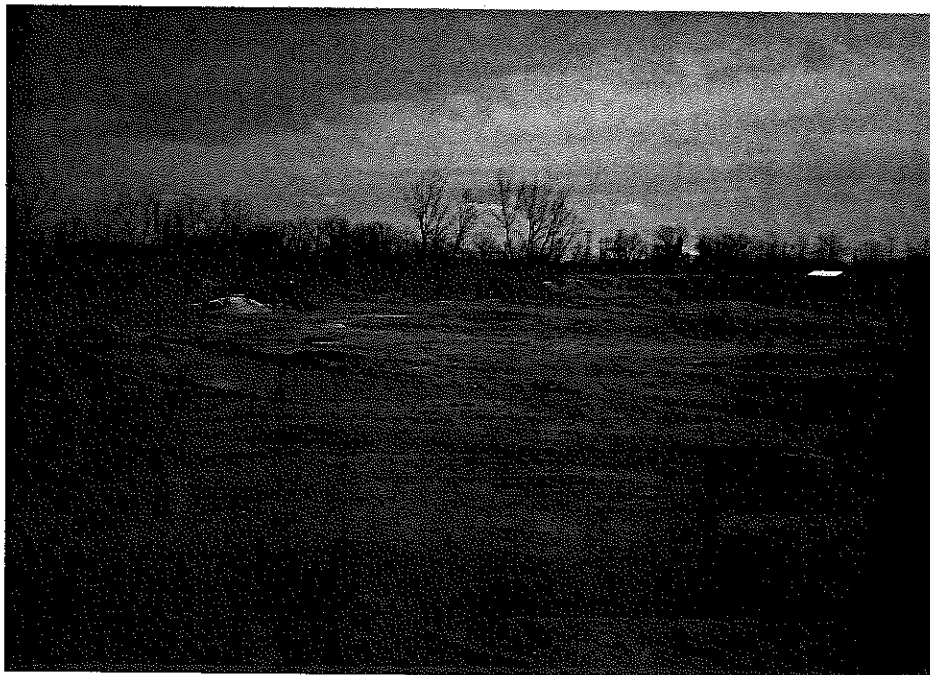
GPO 525-555



OFFICIAL PHOTOGRAPH
U.S. ENVIRONMENTAL PROTECTION AGENCY

PROJECT/CASE NO: Blue Lake
SUBJECT Between Milwaukee &
LOCATION: Morris
CITY: Indianapolis COUNTY: _____ STATE: _____
DATE: _____ TIME: _____
WEATHER: (SUN) (HAZE) (CLOUDY) (RAIN) (SNOW)
PHOTOGRAPHER (Sg.) John W. Brown
WITNESS: _____
CAMERA: _____
FILM TYPE: _____ ASA: _____ T.1/ _____ f. _____
NEGATIVE LOCATION: _____ FILE #: _____
PROCESSED BY: _____
PHOTO #: 11 of 13

GPO 525-555



OFFICIAL PHOTOGRAPH
U.S. ENVIRONMENTAL PROTECTION AGENCY

PROJECT/CASE NO: Blue Lake
SUBJECT Between Milwaukee &
LOCATION: Morris
CITY: _____ COUNTY: _____ STATE: _____
DATE: _____ TIME: _____
WEATHER: (SUN) (HAZE) (CLOUDY) (RAIN) (SNOW)
PHOTOGRAPHER (Sg.) John W. Brown
WITNESS: _____
CAMERA: _____
FILM TYPE: _____ ASA: _____ T.1/ _____ f. _____
NEGATIVE LOCATION: _____ FILE #: _____
PROCESSED BY: _____



OFFICIAL PHOTOGRAPH
U.S. ENVIRONMENTAL PROTECTION AGENCY

PROJECT/CASE NO: Blue Lake
SUBJECT: N of Morris
LOCATION: Indianapolis
CITY: _____ COUNTY: _____ STATE: _____
DATE: _____ TIME: _____
WEATHER: (SUN) (HAZE) (CLOUDY) (RAIN) (SNOW)
PHOTOGRAPHER (Sig): [Signature]
WITNESS: _____
CAMERA: _____
FILM TYPE: _____ ASA: _____ T:1/ _____ f: _____
NEGATIVE LOCATION: _____ FILE #: _____
PROCESSED BY: _____
PHOTO #: 13 of 13

GPO 835-559



OFFICIAL PHOTOGRAPH
U.S. ENVIRONMENTAL PROTECTION AGENCY

PROJECT/CASE NO: _____
SUBJECT: _____
LOCATION: _____
CITY: _____ COUNTY: _____ STATE: _____
DATE: _____ TIME: _____
WEATHER: (SUN) (HAZE) (CLOUDY) (RAIN) (SNOW)
PHOTOGRAPHER (Sig): _____
WITNESS: _____
CAMERA: _____
FILM TYPE: _____ ASA: _____ T:1/ _____ f: _____
NEGATIVE LOCATION: _____ FILE #: _____
PROCESSED BY: _____
PHOTO #: _____ of _____

GPO 835-559

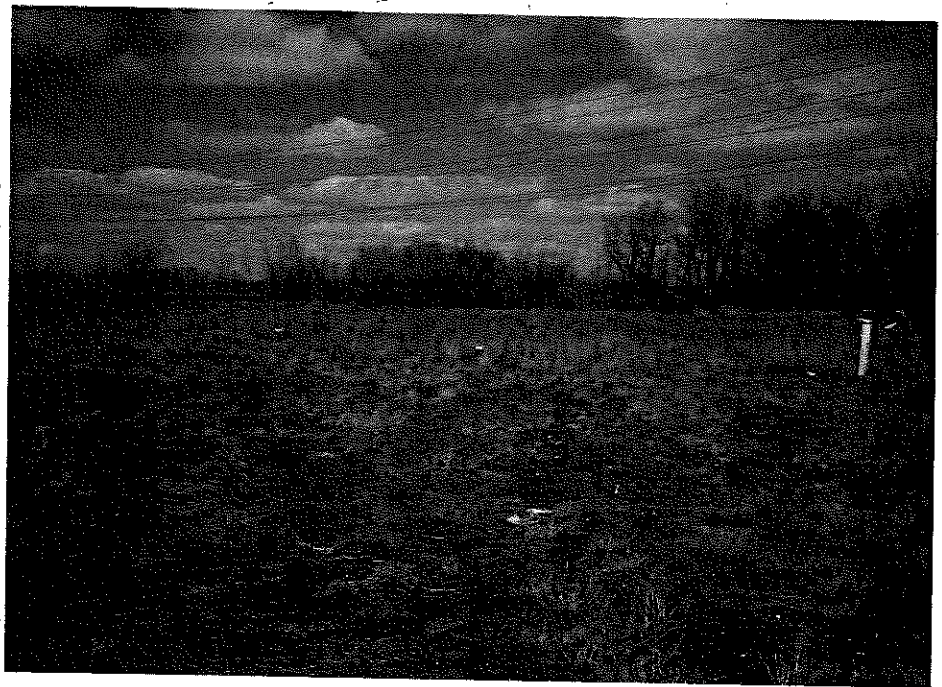
OFFICIAL PHOTOGRAPH
U.S. ENVIRONMENTAL PROTECTION AGENCY

PROJECT/CASE NO: _____
SUBJECT: _____
LOCATION: _____
CITY: _____ COUNTY: _____ STATE: _____
DATE: _____ TIME: _____
WEATHER: (SUN) (HAZE) (CLOUDY) (RAIN) (SNOW)
PHOTOGRAPHER (Sig): _____
WITNESS: _____
CAMERA: _____
FILM TYPE: _____ ASA: _____ T:1/ _____ f: _____
NEGATIVE LOCATION: _____ FILE #: _____
PROCESSED BY: _____
PHOTO: _____

OFFICIAL PHOTOGRAPH
U.S. ENVIRONMENTAL PROTECTION AGENCY

PROJECT/CASE NO: Blue Lake
SUBJECT: N of Morris
LOCATION: Indianapolis
CITY: _____ COUNTY: _____ STATE: _____
DATE: _____ TIME: _____
WEATHER: (SUN) (HAZE) (CLOUDY) (RAIN) (SNOW)
PHOTOGRAPHER (Sig.) [Signature]
WITNESS: _____
CAMERA: _____
FILM TYPE: _____ ASA: _____ T:1/ _____ f: _____
NEGATIVE LOCATION: _____ FILE #: _____
PROCESSED BY: _____
PHOTO #: 13 of 13

GPO 535-559



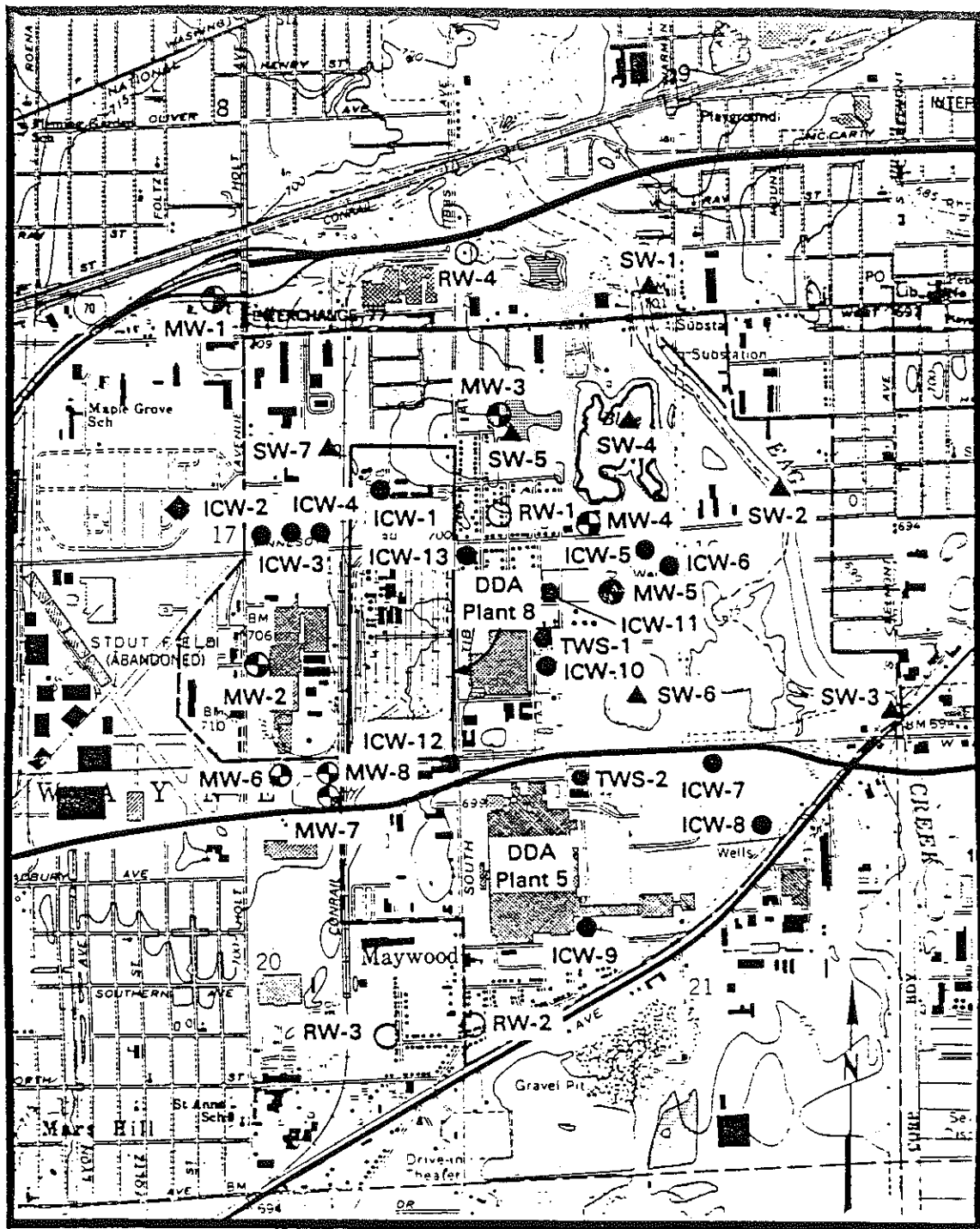
OFFICIAL PHOTOGRAPH
U.S. ENVIRONMENTAL PROTECTION AGENCY

PROJECT/CASE NO: _____
SUBJECT: _____
LOCATION: _____
CITY: _____ COUNTY: _____ STATE: _____
DATE: _____ TIME: _____
WEATHER: (SUN) (HAZE) (CLOUDY) (RAIN) (SNOW)
PHOTOGRAPHER (Sig.) _____
WITNESS: _____
CAMERA: _____
FILM TYPE: _____ ASA: _____ T:1/ _____ f: _____
NEGATIVE LOCATION: _____ FILE #: _____
PROCESSED BY: _____
PHOTO #: _____ of _____

GPO 535-559

OFFICIAL PHOTOGRAPH
U.S. ENVIRONMENTAL PROTECTION AGENCY

PROJECT/CASE NO: _____
SUBJECT: _____
LOCATION: _____
CITY: _____ COUNTY: _____ STATE: _____
DATE: _____ TIME: _____
WEATHER: (SUN) (HAZE) (CLOUDY) (RAIN) (SNOW)
PHOTOGRAPHER (Sig.) _____
WITNESS: _____
CAMERA: _____
FILM TYPE: _____ ASA: _____ T:1/ _____ f: _____
NEGATIVE LOCATION: _____ FILE #: _____
PROCESSED BY: _____
PHOTO #: _____ of _____



- LEGEND**
- Approximate Site Boundary
 - Industrial/Commercial Wells (ICW)
 - Residential Wells (RW)
 - Monitoring Wells (MW)
 - Treated Water Sampling Point (TWS)
 - Surface Water Sampling Point (SW)
 - General Area of Well Inventory

Scale
0 1000 2000 Ft

Attachment D pg 1 of 10

Figure 3-1 Phase I Sample Locations

TABLE 1

PHASE I ANALYTICAL DATA

REILLY TAR AND CHEMICAL CORP., INDIANAPOLIS, INDIANA

PRIORITY POLLUTANT METALS, CYANIDE (ug/l) AND AMMONIA (mg/l)

SPECIES	FIELD I.D.: LAB I.D.	SW-1 5943520	SW-2 5943508	SW-3 5943507	SW-4 5943519	SW-5 5943509	SW-5A 5943510	SW-6 5943512	SW-7 5943518
ALUMINUM	11	80.9 B	148.0 B	259.0	254.0	76.6 B	92.6 B	45.9 B	234.0
ANTIMONY		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
ARSENIC		BDL	BDL	BDL	2.1 B	3.4 B	3.6 B	2.3 B	BDL
BARIUM		99.9 B	71.6 B	73.2 B	76.3 B	150.0 B	148.0 B	91.7 B	29.8 B
BERYLLIUM		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
CADMIUM		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
CALCIUM		76500.0	76900.0	74000.0	79700.0	69500.0	68800.0	76700.0	18300.0
CHROMIUM		BDL	BDL	6.7 B	BDL	BDL	BDL	BDL	BDL
COBALT		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
COPPER		7.2 B	6.5 B	10.5 B	BDL	BDL	BDL	BDL	20.8 B
IRON		170.0	223.0	445.0	399.0	315.0	296.0	583.0	235.0
LEAD		BDL	2.3 B	3.4 B	7.7	BDL	BDL	BDL	3.9 B
MAGNESIUM		25800.0	22700.0	23200.0	23500.0	29700.0	29500.0	31800.0	1200.0 B
MANGANESE		76.7	52.4	54.2	55.9	61.5	58.1	51.2	31.8
MERCURY		BDL	1.1	0.5	0.3	0.6	BDL	0.3	0.7
NICKEL		BDL	8.9 B	BDL	BDL	8.4 B	9.0 B	BDL	BDL
POTASSIUM		5830.0	2740.0 B	2990.0 B	2810.0 B	3200.0 B	3240.0 B	3080.0 B	845.0 B
SELENIUM		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SILVER		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SODIUM		52500.0	30000.0	36200.0	35200.0	41600.0	41500.0	57600.0	11800.0
THALLIUM		2.4 B	BDL	BDL	2.6 B	BDL	2.3 B	2.6 B	2.6 B
VANADIUM		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
ZINC		13.0 B	10.8 B	14.5 B	8.1 B	5.9 B	5.4 B	3.7 B	44.5
CYANIDE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
AMMONIA		0.8	0.7	1.2	BDL	3.5	3.6	BDL	BDL

BDL - Below Detection Limit

Metals results reported in micrograms per liter (ug/l), or parts per billion
 Ammonia results reported in milligrams per liter (mg/l), or parts per million

B - Reported value is less than Contract Required Detection Limit (CRDL)
 but greater than Instrument Detection Limit (IDL).

TABLE 1
 PHASE I ANALYTICAL DATA
 REILLY TAR AND CHEMICAL CORP., INDIANAPOLIS, INDIANA
 PRIORITY POLLUTANT METALS, CYANIDE (ug/l) AND AMMONIA (mg/l)

SPECIES	FIELD I.D.: LAB I.D.	ICW-12 5944905	ICW-13 5944501	TWS-1 5943513	TWS-2 594305	MW-1 5943514	MW-2 5944505	MW-3 5944515	MW-3A 5944516
ALUMINUM	11	BDL	75.6 B	BDL	BDL	37.2 B	BDL	BDL	BDL
ANTIMONY		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
ARSENIC		BDL	4.2 B	BDL	2.4 B	BDL	BDL	6.7 B	6.7 B
BARIUM		96.3 B	79.7 B	167.0 B	14.1 B	107.0 B	54.7 B	314.0	312.0
BERYLLIUM		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
CADMIUM		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
CALCIUM		116000.0	8800.0	94900.0	20100.0	98900.0	100000.0	31000.0	30700.0
CHROMIUM		BDL	10.4	BDL	BDL	BDL	BDL	BDL	BDL
COBALT		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
COPPER		23.4 B	53.8	10.4 B	BDL	7.1 B	8.2 B	BDL	BDL
IRON		11900.0	19000.0	170.0	BDL	1580.0	1880.0	1910.0	1900.0
LEAD		13.6	51.2	BDL	2.5 B	14.3	6.3	3.7 B	3.9 B
MAGNESIUM		36500.0	3210.0 B	34600.0	20200.0	25400.0	27500.0	24100.0	23900.0
MANGANESE		26.3	57.5	137.0	BDL	142.0	36.9	33.0	33.7
MERCURY		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
NICKEL		BDL	26.7 B	BDL	BDL	BDL	BDL	BDL	BDL
POTASSIUM		3150.0 B	3080.0 B	3700.0 B	5160.0	2110.0 B	2060.0 B	4550.0 B	4510.0 B
SELENIUM		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SILVER		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SODIUM		51400.0	340000.0	72000.0	44300.0	40200.0	23500.0	57400.0	57700.0
THALLIUM		BDL	BDL	2.9 B	BDL	2.4 B	BDL	BDL	BDL
VANADIUM		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
ZINC		143.0	9570.0	60.3	3.4 B	20.0	565.0	83.0	84.4
CYANIDE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
AMMONIA		BDL	0.8	22.0	2.0	BDL	BDL	48.7	50.8

BDL - Below Detection Limit

Metals results reported in micrograms per liter (ug/l), or parts per billion
 Ammonia results reported in milligrams per liter (mg/l), or parts per million

B - Reported value is less than Contract Required Detection Limit (CRDL)
 but greater than Instrument Detection Limit (IDL).

TABLE 1
PHASE I ANALYTICAL DATA
REILLY TAR AND CHEMICAL CORP., INDIANAPOLIS, INDIANA
PRIORITY POLLUTANT METALS, CYANIDE (ug/l) AND AMMONIA (mg/l)

SPECIES	FIELD I.D.: LAB I.D.	MW-4 5944504	MW-5 5943516	MW-6 5944506	MW-7 5944502	MW-8 5944507	RW-1 5944511	RW-1A 5944512
ALUMINUM	1	749.0	407.0	6250.0	54.7 B	3960.0	BDL	BDL
ANTIMONY		BDL	BDL	BDL	BDL	BDL	BDL	BDL
ARSENIC		43.1	BDL	5.5 B	8.6 B	19.7	20.6	22.1
BARIUM		284.0	99.0 B	100.0 B	101.0 B	146.0 B	183.0 B	179.0 B
BERYLLIUM		BDL	BDL	BDL	BDL	BDL	BDL	BDL
CADMIUM		BDL	BDL	BDL	BDL	BDL	BDL	BDL
CALCIUM		161000.0	75900.0	127000.0	100000.0	106000.0	119000.0	117000.0
CHROMIUM		30.3	46.1	13.3	BDL	17.1	BDL	BDL
COBALT		BDL	6.4 B	11.7 B	BDL	10.6 B	BDL	BDL
COPPER		430.0	42.5	46.2	8.4 B	56.1	BDL	BDL
IRON		127000.0	42900.0	20700.0	6360.0	14800.0	6720.0	6600.0
LEAD		2340.0	453.0	15.2	BDL	16.4	BDL	2.7 B
MAGNESIUM		39000.0	36700.0	37000.0	30800.0	42600.0	31800.0	31200.0
MANGANESE		918.0	282.0	461.0	355.0	579.0	430.0	416.0
MERCURY		BDL	BDL	BDL	BDL	BDL	BDL	BDL
NICKEL		37.5 B	53.5	18.6 B	BDL	25.1 B	BDL	BDL
POTASSIUM		4690.0 B	4370.0 B	3000.0 B	4720.0 B	4430.0 B	2520.0 B	2410.0 B
SELENIUM		BDL	BDL	BDL	BDL	BDL	BDL	BDL
SILVER		11.3	BDL	BDL	BDL	BDL	BDL	BDL
SODIUM		63600.0	115000.0	34000.0	102000.0	176000.0	76200.0	74000.0
THALLIUM		BDL	2.6 B	BDL	BDL	BDL	BDL	BDL
VANADIUM		6.8 B	BDL	19.8 B	BDL	12.6 B	BDL	BDL
ZINC		3190.0	1720.0	128.0	14.7 B	69.4	205.0	208.0
CYANIDE		BDL	14.3	BDL	BDL	BDL	BDL	BDL
AMMONIA		3.5	2.9	BDL	1.9	1.9	19.4	16.8

BDL - Below Detection Limit

Metals results reported in micrograms per liter (ug/l), or p
Ammonia results reported in milligrams per liter (mg/l), or parts per million

B - Reported value is less than Contract Required Detection Limit (CRDL)
but greater than Instrument Detection Limit (IDL).

TABLE 2
PHASE I ANALYTICAL DATA
REILLY TAR AND CHEMICAL CORP., INDIANAPOLIS, INDIANA
BNA COMPOUNDS (ug/l)

	FIELD I.D.:	SW-1	SW-2	SW-3	SW-4	SW-5	SW-5A	SW-6	SW-7	SW-7A
BNA COMPOUNDS	LAB I.D.:	5943623	5943608	5943607	5943622	5943609	5943610	5943612	5943620	5943619
PHENOL		11.0	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
BIS(2-CHLOROETHYL)ETHER		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2-CHLOROPHENOL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,3-DICHLOROBENZENE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,4-DICHLOROBENZENE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
BENZYL ALCOHOL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2-DICHLOROBENZENE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2-METHYLPHENOL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
BIS(2-CHLOROISOPROPYL)ETHER		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
4-METHYLPHENOL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
N-NITROSO-DI-N-PROPYLAMINE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
HEXACHLOROETHANE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
NITROBENZENE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
ISOPHORONE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2-NITROPHENOL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2,4-DIMETHYLPHENOL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
BIS(2-CHLOROETHOXY)METHANE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2,4-DICHLOROPHENOL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
BENZOIC ACID		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2,4-TRICHLOROBENZENE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
NAPHTHALENE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
4-CHLOROANILINE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
HEXACHLOROBUTADIENE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
4-CHLORO-3-METHYLPHENOL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2-METHYLNAPHTHALENE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
HEXACHLOROCYCLOPENTADIENE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2,4,6-TRICHLOROPHENOL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2,4,5-TRICHLOROPHENOL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2-CHLORONAPHTHALENE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2-NITROANILINE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DIMETHYLPHTHALATE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
ACENAPHTHYLENE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2,6-DINITROTOLUENE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
3-NITROANILINE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
ACENAPHTHENE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2,4-DINITROPHENOL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DIBENZOFURAN		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
4-NITROPHENOL		BDL	BDL	BDL	BDL	2.6	BDL	BDL	BDL	BDL
2,4-DINITROTOLUENE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DIETHYLPHTHALATE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
FLUORENE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
4-CHLOROPHENYL-PHENYLETHER		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
4-NITROANILINE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
4,6-DINITRO-2-METHYLPHENOL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
N-NITROSDIPHENYLAMINE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
4-BROMOPHENYL-PHENYLETHER		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
HEXACHLOROBENZENE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
PENTACHLOROPHENOL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

BDL - Below Detection Limits

Results reported in micrograms per liter (ug/l), or parts per billion.

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TABLE 2
PHASE I ANALYTICAL DATA
REILLY TAR AND CHEMICAL CORP., INDIANAPOLIS, INDIANA
BNA COMPOUNDS (ug/l)

	FIELD I.D.:	SW-1	SW-2	SW-3	SW-4	SW-5	SW-5A	SW-6	SW-7	SW-7A
BNA COMPOUNDS	LAB I.D.:	5943623	5943608	5943607	5943622	5943609	5943610	5943612	5943620	5943619
PHENANTHRENE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
ANTHRACENE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DI-N-BUTYLPHTHALATE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	2.1
FLUORANTHENE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
PYRENE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
BUTYLBENZYLPHALATE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	3.2
BENZO(A)ANTHRACENE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
3,3'-DICHLOROBENZIDINE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
CHRYSENE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
BIS(2-ETHYLHEXYL)PHTHALATE		5.3	9.0	9.6	2.8	7.3	3.3	12.0	2.5	280.0
DI-N-OCTYL PHTHALATE		BDL	2.4	2.0	BDL	BDL	BDL	BDL	BDL	BDL
BENZO(B)FLUORANTHENE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
BENZO(K)FLUORANTHENE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
BENZO(A)PYRENE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
INDENO(1,2,3-CD)PYRENE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
DIBENZ(A,H)ANTHRACENE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
BENZO(G,H,I)PERYLENE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

BDL - Below Detection Limits

Results reported in micrograms per liter (ug/l), or parts per billion.

TABLE 3

PHASE I ANALYTICAL DATA

REILLY TAR AND CHEMICAL CORP. INDIANAPOLIS, INDIANA
PYRIDINE COMPOUNDS (ug/l); PAH COMPOUNDS (ng/l)

PYRIDINE COMPOUNDS	FIELD I.D.: LAB I.D.:	SW-1 5943623	SW-2 5943608	SW-3 5943607	SW-4 5943622	SW-5 5943609	SW-5A 5943610	SW-6 5943612	SW-7 5943620	SW-7A 5943619
PYRIDINE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2-PICOLINE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
3 & 4-PICOLINE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2,6-LUTIDINE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2-ETHYL PYRIDINE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2,4 & 2,5-LUTIDINE		BDL	BDL	BDL	BDL	4.0	5.0	BDL	BDL	BDL
2,3-LUTIDINE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
3-ETHYL PYRIDINE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
4-ETHYL PYRIDINE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
3,5-LUTIDINE		BDL	BDL	2.8	BDL	BDL	18.0	BDL	BDL	BDL
3,4-LUTIDINE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2-METHYL-5-ETHYL PYRIDINE		BDL	BDL	BDL	BDL	2.0	2.8	BDL	BDL	BDL
2-METHYL-3-ETHYL PYRIDINE		BDL	BDL	BDL	BDL	2.8	3.5	BDL	BDL	BDL
M AND P CRESOLS		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
3-ETHYL-4-METHYL PYRIDINE		BDL	BDL	BDL	BDL	BDL	8.1	BDL	BDL	BDL
3-ETHYL-5-METHYL PYRIDINE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2,6-DIMETHYL PHENOL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2,5-DIMETHYL PHENOL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
3,5-DIMETHYL PHENOL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2,3-DIMETHYL PHENOL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
3,4-DIMETHYL PHENOL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1-METHYLNAPHTHALENE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
TOTAL PYRIDINES		0.0	0.0	2.8	0.0	8.8	37.4	0.0	0.0	0.0
Results reported in micrograms per liter (ug/l), or parts per billion.										

PAH COMPOUNDS

BENZO(A)ANTHRACENE	BDL	BDL	BDL	8.1	BDL	BDL	BDL	BDL	BDL	BDL
CHRYSENE	4.6	3.5	4.8	12.0	BDL	BDL	5.2	4.3	BDL	BDL
BENZO(B)FLUORANTHENE	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
BENZO(K)FLUORANTHENE	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
BENZO(A)PYRENE	BDL	BDL	BDL	7.9	BDL	BDL	BDL	BDL	BDL	BDL
TOTAL PAH	4.6	3.5	4.8	28.0	0.0	0.0	5.2	4.3	0.0	0.0
Results reported in nanograms per liter (ng/l), or parts per trillion.										

BDL - Below Detectable Limits

TABLE 3
 PHASE I ANALYTICAL DATA
 REILLY TAR AND CHEMICAL CORP. INDIANAPOLIS, INDIANA
 PYRIDINE COMPOUNDS (ug/l);

PYRIDINE COMPOUNDS	FIELD I.D.: LAB I.D.:	TWS-1 5943613	TWS-2 5943605	MW-1 5943614	MW-2 5944405	MW-3 5944415	MW-3A 5944416	MW-4 5944404	MW-5 5943617	MW-6 5944406
PYRIDINE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2-PICOLINE		21.0	BDL	BDL	BDL	1200.0	970.0	BDL	BDL	BDL
3 & 4-PICOLINE		45.0	BDL	BDL	BDL	1500.0	1100.0	BDL	BDL	BDL
2,6-LUTIDINE		BDL	BDL	BDL	BDL	100.0	79.0	BDL	BDL	BDL
2-ETHYL PYRIDINE		4.6	BDL	BDL	BDL	110.0	85.0	BDL	BDL	BDL
2,4 & 2,5-LUTIDINE		52.0	BDL	BDL	BDL	460.0	350.0	BDL	BDL	BDL
2,3-LUTIDINE		17.0	BDL	BDL	BDL	260.0	190.0	BDL	BDL	BDL
3-ETHYL PYRIDINE		8.6	BDL	BDL	BDL	390.0	290.0	BDL	BDL	BDL
4-ETHYL PYRIDINE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
3,5-LUTIDINE		31.0	BDL	BDL	BDL	690.0	530.0	BDL	BDL	BDL
3,4-LUTIDINE		7.3	BDL	BDL	BDL	110.0	77.0	BDL	BDL	BDL
2-METHYL-5-ETHYL PYRIDINE		7.8	BDL	BDL	BDL	350.0	260.0	BDL	BDL	BDL
2-METHYL-3-ETHYL PYRIDINE		2.9	BDL	BDL	BDL	140.0	110.0	BDL	BDL	BDL
M AND P CRESOLS		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
3-ETHYL-4-METHYL PYRIDINE		BDL	BDL	BDL	BDL	220.0	160.0	BDL	BDL	BDL
3-ETHYL-5-METHYL PYRIDINE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2,6-DIMETHYL PHENOL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2,5-DIMETHYL PHENOL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
3,5-DIMETHYL PHENOL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2,3-DIMETHYL PHENOL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
3,4-DIMETHYL PHENOL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1-METHYLNAPHTHALENE		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
TOTAL PYRIDINES		197.2	0.0	0.0	0.0	5530.0	4201.0	0.0	0.0	0.0
Results reported in micrograms per liter (ug/l), or parts per billion.										

PAH COMPOUNDS

BENZO(A)ANTHRACENE	BDL	BDL	BDL	6.0	BDL	BDL	BDL	BDL	BDL	3.8
CHRYSENE	BDL	BDL	BDL	16.0	BDL	BDL	BDL	BDL	29.0	3.8
BENZO(B)FLUORANTHENE	BDL	BDL	BDL	12.0	BDL	BDL	BDL	BDL	BDL	BDL
BENZO(K)FLUORANTHENE	BDL	BDL	BDL	11.0	BDL	BDL	BDL	BDL	BDL	BDL
BENZO(A)PYRENE	BDL	BDL	BDL	8.7	BDL	BDL	BDL	BDL	BDL	BDL
TOTAL PAH		0.0	0.0	0.0	53.7	0.0	0.0	0.0	29.0	7.6
Results reported in nanograms per liter (ng/l), or parts per trillion.										

BDL - Below Detectable Limits

TABLE 4
PHASE I ANALYTICAL DATA
REILLY TAR AND CHEMICAL CORP., INDIANAPOLIS, INDIANA
VOLATILE ORGANIC COMPOUNDS (ug/l)

VOLATILE COMPOUNDS	FIELD I.D.: LAB I.D.: 5943614	MW-1 5944405	MW-2 5944415	MW-3 5944416	MW-3A 5944404	MW-4 5943617	MW-5 5944406	MW-6
CHLOROMETHANE	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
BROMOMETHANE	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
VINYL CHLORIDE	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
CHLOROETHANE	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
METHYLENE CHLORIDE	BDL	1.8 JB	8.1 B	79.0 B	14.0 B	31.0 B	6.6 B	
ACETONE	9.0 B	1.6 J	BDL	BDL	1.9 J	6.2 JB	BDL	
CARBON DISULFIDE	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
1,1-DICHLOROETHENE	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
1,1-DICHLOROETHANE	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
TRANS-1,2-DICHLOROETHENE	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
CHLOROFORM	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
1,2-DICHLOROETHANE	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
2-BUTANONE	5.6 J	BDL	BDL	BDL	BDL	BDL	BDL	
1,1,1-TRICHLOROETHANE	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
CARBON TETRACHLORIDE	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
VINYL ACETATE	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
BROMODICHLOROMETHANE	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
1,1,2,2-TETRACHLOROETHANE	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
1,2-DICHLOROPROPANE	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
TRANS-1,3-DICHLOROPROPENE	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
TRICHLOROETHENE	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
DIBROMOCHLOROMETHANE	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
1,1,2-TRICHLOROETHANE	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
BENZENE	BDL	BDL	BDL	390.0	BDL	BDL	BDL	
CIS-1,3-DICHLOROPROPENE	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
2-CHLOROETHYL VINYL ETHER	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
BROMOFORM	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
2-HEXANONE	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
4-METHYL-2-PENTANONE	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
TETRACHLOROETHENE	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
TOLUENE	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
CHLOROBENZENE	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
ETHYLBENZENE	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
STYRENE	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
TOTAL XYLENES	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
Tentatively Identified								
DIISOPROPYL ETHER	-	-	-	-	34.0	-	-	
HEXANE	-	-	-	-	-	-	-	
TETRAHYDROFURAN	-	-	-	-	-	-	-	
TRICHLOROFLUOROMETHANE	-	-	-	-	-	-	-	

B - Compound was detected in blank

J - Concentration detected is less than the required detection limit

BDL - Below Detection Limit

For tentatively identified compounds, only the reported detection is listed.

Detection limits are variable. Refer to the complete laboratory data package for specific sample detection limit.

TABLE 4
PHASE I ANALYTICAL DATA
REILLY TAR AND CHEMICAL CORP., INDIANAPOLIS, INDIANA
VOLATILE ORGANIC COMPOUNDS (ug/l)

VOLATILE COMPOUNDS	FIELD I.D.: LAB I.D.: 5944402	MW-7 5944407	MW-8 5944411	RW-1 5944412	RW-1A 5944413	RW-3 5944414	RW-3A 5944410
CHLOROMETHANE	BDL	BDL	BDL	BDL	BDL	BDL	BDL
BROMOMETHANE	BDL	BDL	BDL	BDL	BDL	BDL	BDL
VINYL CHLORIDE	BDL	BDL	BDL	BDL	BDL	BDL	BDL
CHLOROETHANE	BDL	BDL	BDL	BDL	BDL	BDL	BDL
METHYLENE CHLORIDE	2.7 JB	8.2 B	27.0 B	41.0 B	1.1 JB	1.3 JB	BDL
ACETONE	2.1 J	4.8 J	BDL	BDL	1.1 J	6.5 J	BDL
CARBON DISULFIDE	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1-DICHLOROETHENE	BDL	2.1 J	BDL	BDL	BDL	BDL	BDL
1,1-DICHLOROETHANE	6.6	8.8	BDL	BDL	BDL	BDL	BDL
TRANS-1,2-DICHLOROETHENE	2.2 J	42.0	BDL	BDL	BDL	BDL	BDL
CHLOROFORM	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2-DICHLOROETHANE	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2-BUTANONE	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1,1-TRICHLOROETHANE	BDL	BDL	BDL	BDL	BDL	BDL	BDL
CARBON TETRACHLORIDE	BDL	BDL	BDL	BDL	BDL	BDL	BDL
VINYL ACETATE	BDL	BDL	BDL	BDL	BDL	BDL	BDL
BROMODICHLOROMETHANE	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1,2,2-TETRACHLOROETHANE	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2-DICHLOROPROPANE	BDL	BDL	BDL	BDL	BDL	BDL	BDL
TRANS-1,3-DICHLOROPROPENE	BDL	BDL	BDL	BDL	BDL	BDL	BDL
TRICHLOROETHENE	BDL	34.0	BDL	BDL	86.0	BDL	BDL
DIBROMOCHLOROMETHANE	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1,2-TRICHLOROETHANE	BDL	BDL	BDL	BDL	BDL	BDL	BDL
BENZENE	BDL	1.1 J	520.0	600.0	BDL	BDL	BDL
CIS-1,3-DICHLOROPROPENE	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2-CHLOROETHYL VINYL ETHER	BDL	BDL	BDL	BDL	BDL	BDL	BDL
BROMOFORM	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2-HEXANONE	BDL	BDL	BDL	BDL	BDL	2.1 J	BDL
4-METHYL-2-PENTANONE	BDL	BDL	BDL	BDL	BDL	BDL	BDL
TETRACHLOROETHENE	BDL	BDL	BDL	BDL	BDL	BDL	BDL
TOLUENE	BDL	BDL	BDL	BDL	BDL	BDL	BDL
CHLOROBENZENE	BDL	BDL	BDL	BDL	BDL	BDL	BDL
ETHYLBENZENE	BDL	BDL	BDL	BDL	BDL	BDL	BDL
STYRENE	BDL	BDL	BDL	BDL	BDL	BDL	BDL
TOTAL XYLENES	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Tentatively Identified

DIISOPROPYL ETHER	8.0	8.2	-	-	-	-	-
HEXANE	-	-	-	-	-	-	-
TETRAHYDROFURAN	-	-	-	-	-	-	-
TRICHLOROFLUOROMETHANE	-	-	-	-	-	-	-

B - Compound was detected in blank

J - Concentration detected is less than the required detection limit

BDL - Below Detection Limit

For tentatively identified compounds, only the reported detection is listed.

Detection limits are variable. Refer to the complete laboratory data package for specific sample detection limit.

YE

CORRECTIVE ACTION STABILIZATION QUESTIONNAIRE

Completed by: Marv Wojciechowski
Date: September 9, 1992

Background Facility Information

Facility Name: Blue Lake
EPA Identification No.: IND 046 107 157
Location (City, State): Indianapolis, Indiana
Facility Priority Rank: High

1. Is this checklist being completed for one solid waste management unit (SWMU), several SWMUs, or the entire facility? Explain.

Entire facility
1 Landfill

Status of Corrective Action Activities at the Facility

2. What is the current status of HSWA corrective action activities at the facility?
- ☐ No corrective action activities initiated (Go to 5)
- ☒ RCRA Facility Assessment (RFA) or equivalent completed
- ☐ RCRA Facility Investigation (RFI) underway
- ☐ RFI completed
- ☐ Corrective Measures Study (CMS) completed
- ☐ Corrective Measures Implementation (CMI) begun or completed
- ☐ Interim Measures begun or completed

3. If corrective action activities have been initiated, are they being carried out under a permit or an enforcement order?

☐ Operating permit
☐ Post-closure permit
☐ Enforcement order
☐ Other (Explain)

Corrective action has not been initiated.

4. Have interim measures, if required or completed [see Question 2], been successful in preventing the further spread of contamination at the facility?

☐ Yes
☐ No
☐ Uncertain; still underway
☒ Not required

Additional explanatory notes:

Interim measures have not been formally required.

Facility Releases and Exposure Concerns

5. To what media have contaminant releases from the facility occurred or been suspected of occurring?

☒ Ground water
☒ Surface water
☐ Air
☒ Soils

6. Are contaminant releases migrating off-site?

☒ Yes; Indicate media, contaminant concentrations, and level of certainty.

Groundwater: Metals and benzene found in an inactive residential well

Surface water:

Air:

Soils:

☐ No
☐ Uncertain

- 7a. Are humans currently being exposed to contaminants released from the facility?

☐ Yes (Go to 8a)
☐ No
☒ Uncertain

Additional explanatory notes:

It is not known if there are any active wells in the area.

- 7b. Is there a potential for human exposure to the contaminants released from the facility over the next 5 to 10 years?

☐ Yes
☐ No
☒ Uncertain

Additional explanatory notes:

It is not known if there are any active wells in the area.

- 8a. Are environmental receptors currently being exposed to contaminants released from the facility?

☐ Yes (Go to 9)
☐ No
☒ Uncertain

Additional explanatory notes:

It is not known if there are any active wells in the area.

- 8b. Is there a potential that environmental receptors could be exposed to the contaminants released from the facility over the next 5 to 10 years?

☐ Yes
☐ No
☒ Uncertain

Additional explanatory notes:

It is not known if there are any active wells in the area.

Anticipated Final Corrective Measures

9. If already identified or planned, would final corrective measures be able to be implemented in time to adequately address any existing or short-term threat to human health and the environment?

☐ Yes
☒ No
☐ Uncertain

Additional explanatory notes:

Final corrective measures have not been identified or planned.

10. Could a stabilization initiative at this facility reduce the present or near-term (e.g., less than two years) risks to human health and the environment?

☒ Yes
☐ No
☐ Uncertain

Additional explanatory notes:

Stabilization appears to be necessary but further information regarding the nature and extent of on- and off-site contamination and off-site receptors is needed before a stabilization initiative can be selected.

11. If a stabilization activity were not begun, would the threat to human health and the environment significantly increase before final corrective measures could be implemented?

☐ Yes
☐ No
☒ Uncertain

Additional explanatory notes:

Further information regarding the nature and extent of on- and off-site contamination and off-site receptors is needed before a stabilization initiative can be selected.

Technical Ability to Implement Stabilization Activities

12. In what phase does the contaminant exist under ambient site conditions? Check all that apply.

☒ Solid
☐ Light non-aqueous phase liquids (LNAPLs)
☐ Dense non-aqueous phase liquids (DNAPLs)
☒ Dissolved in ground water or surface water
☐ Gaseous
☐ Other _____

13. Which of the following major chemical groupings are of concern at the facility?

☒ Volatile organic compounds (VOCs) and/or semi-volatiles
☒ Polynuclear aromatics (PAHs)
☐ Pesticides
☐ Polychlorinated biphenyls (PCBs) and/or dioxins
☐ Other organics
☒ Inorganics and metals
☐ Explosives
☒ Other Pyridine compounds

14. Are appropriate stabilization technologies available to prevent the further spread of contamination, based on contaminant characteristics and the facility's environmental setting? [See Attachment A for a listing of potential stabilization technologies.]

☐ Yes; Indicate possible course of action.

☒ No; Indicate why stabilization technologies are not appropriate; then go to Question 18.

Further information regarding the nature and extent of on- and off-site contamination and off-site receptors is needed before a stabilization initiative can be selected.

15. Has the RFI, or another environmental investigation, provided the site characterization and waste release data needed to design and implement a stabilization activity?

☐ Yes
☐ No

If No, can these data be obtained faster than the data needed to implement the final corrective measures?

☐ Yes
☐ No

Timing and Other Procedural Issues Associated with Stabilization

16. Can stabilization activities be implemented more quickly than the final corrective measures?

☐ Yes
☐ No
☐ Uncertain

Additional explanatory notes:

17. Can stabilization activities be incorporated into the final corrective measures at some point in the future?

☐ Yes
☐ No
☐ Uncertain

Additional explanatory notes:

Conclusion

18. Is this facility an appropriate candidate for stabilization activities?

- ☒ (X) Yes
- ☐ () No, not feasible
- ☐ () No, not required
- ☒ (X) Further investigation necessary

Explain final decision, using additional sheets if necessary.

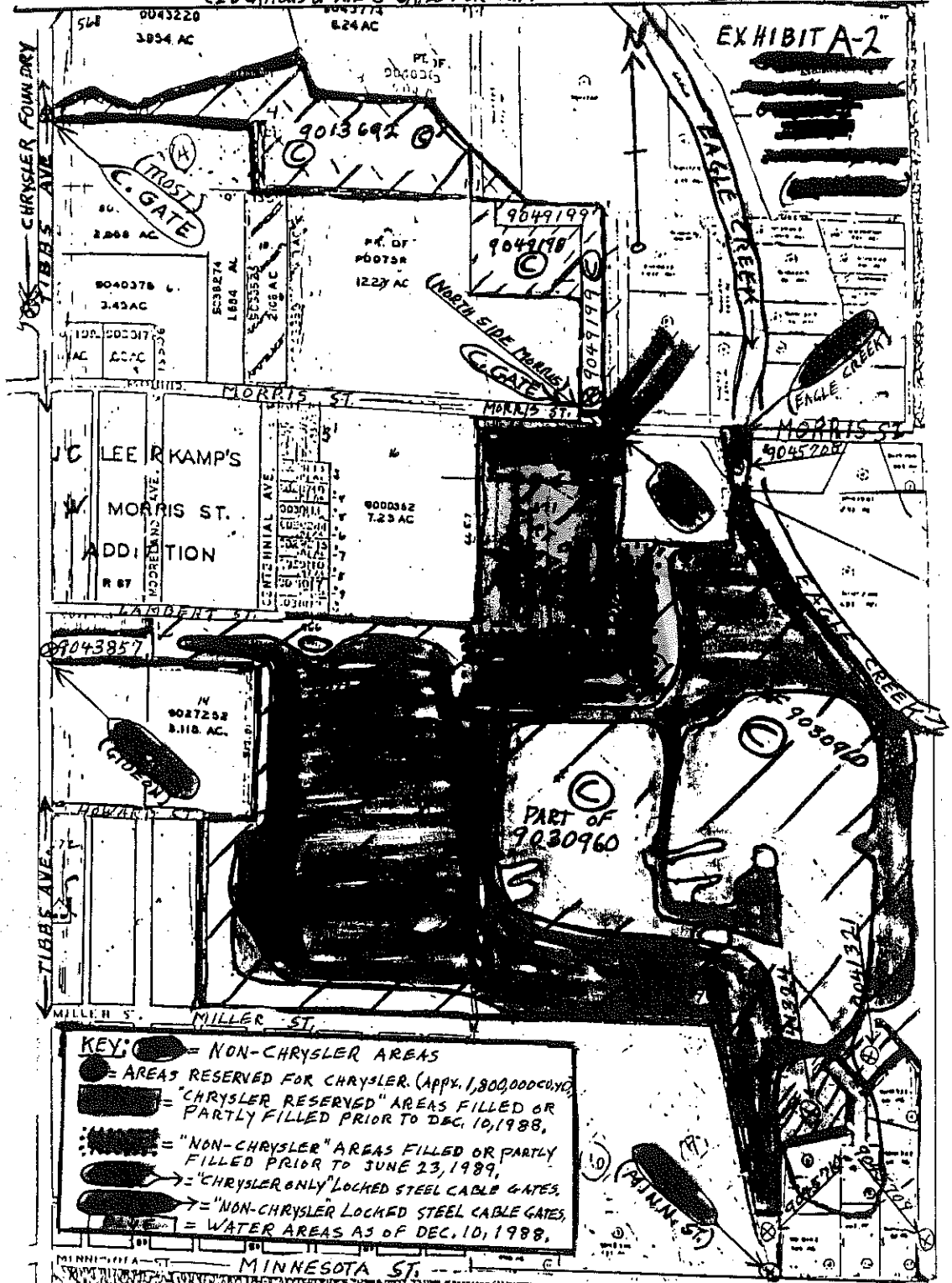
The following information was taken from a 1989 RFA report by U.S. EPA Region V.

Samples taken from two monitoring wells revealed contamination in one of the two wells. Contaminants included barium, zinc, ammonia, pyridine compounds, BNA compounds, PAH compounds, and VOCs.

Two samples taken from ponded surface waters on site revealed the presence of mercury, ammonia, pyridine compounds, and BNA compounds.

A sample from 1 inactive residential well revealed the presence of arsenic, zinc, and benzene. The EPA report recommended that the facility conduct an investigation to fully characterize the site. Until this is done, an appropriate stabilization activity cannot be selected.

EXHIBIT A-2: ACTUAL RESERVED CHRYSLER AREAS OF DEPOSITS AS USED; AND LOCATIONS OF THE 5 GATES FOR CHRYSLER'S USE & THE ONLY NON-CHRYSLER GATE.



"Blue Lake" as used in this document and for the purposes of this Cause of Action means a part of the Southwest Quarter of Section 9 and a part of the Northwest Quarter of Section 16, all in Township 15 North, Range 3 East, Marion County, Indiana, more specifically depicted here as those properties outlined and shaded in red, and which consists of 83.16 acres more or less, and which is owned by Jackson D. Hurt and Blue Lake, Inc., as their interests appear of record.

CODE: ● CHRYSLER AREAS (RESERVED) EXHIBIT "A"
 ● = NON-CHRYSLER AREAS
 ● = OWNER'S HOUSE

LOCATIONS OF 16 PARCELS;
 BLUE LAKE INC @ 11 PAR. = 78.04 AC.
 JACK D. HURT @ 5 PARCELS = 5.12 AC.
 TOTAL ACRES = 83.16

0 spill)

OK DF NI

